THE RELATIONSHIP BETWEEN PSYCHOPATHY AND MALINGERING OF MENTAL ILLNESS

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ABSTRACT

This study focused on the ability and tendency of psychopathic individuals to feign mental illness. The clinical and theoretical literature suggests that psychopaths are more prone to malinger and more adept at such behavior than other individuals. The current study addressed three related questions: 1) Can psychopathic individuals malinger more effectively than nonpsychopathic individuals? 2) Are effective malingerers more psychopathic than poor malingerers? 3) Do psychopaths have a greater tendency than nonpsychopaths to attempt to malinger? These questions were investigated by randomly assigning psychopathic and non-psychopathic inmates into "simulated" malingering and "honest" groups. The primary dependent measure was the Structured Interview of Reported Symptoms. It was hypothesized that psychopathic individuals would be more effective at "fooling" the interview and more prone to report symptoms in the honest condition. The results indicated that psychopaths were no better at simulating mental illness than nonpsychopaths. However, there was a slightly greater tendency for effective malingerers to fall into the psychopathic group. As well, there was a weak tendency for psychopaths to report symptoms more often than nonpsychopaths. Psychopaths also admitted past and current dissimulation behavior more often than nonpsychopaths. The

implications of these results are discussed. These include the limitations of the current study, suggestions for future research, and the possible adoption of a less pejorative view of malingering behavior.

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INTRODUCTION

Accurate and reliable assessment of mental illness is predicated on the veracity of the patient's reported symptoms. However, in some instances self-reported material can be misleading. Malingering is defined as a deliberate attempt to feign a disability or illness in order to achieve some secondary gain or reward. The malingerer is typically conceived as someone attempting to get away with something -- to "dupe" the system. In clinical settings, for example, there is often motivation on behalf of the patient to exaggerate symptomatology in order to receive injury compensation or to maintain the role of "patient" (Yudofsky, 1985). Failure to detect such presentations can result in the unnecessary depletion of mental health and disability insurance resources. The implications for successful deception in forensic settings can be even further reaching. For example, being found unfit to stand trial can serve to delay the trial date, and render the unavailability of key witnesses (Roesch & Golding, 1980). Moreover, a verdict of not guilty by reason of insanity (NGRI) can result in exculpation. Thus, in these contexts, given the absence of a truly objective and reliable measure of mental disorder, the clinician can be compelled to consider the malingering diagnosis.

Although the consequences of successful malingering are potentially great, the ability of clinicians to detect feigned illness is limited. Following his classic study of pseudopatients in an inpatient facility, Rosenhan (1973) concluded that "it is clear that we cannot distinguish the sane from the insane in psychiatric hospitals" (p. 256). Similarly, following a review of the literature, Ziskin (1984) concluded that there is little support for clinicians' contention that they can detect efforts to feign mental illness. The positions taken by Rosenhan and Ziskin have, of course, attracted considerable controversy and criticism (Brodsky, 1989; Matarazzo, 1990; Spitzer, 1976) but nonetheless raise the question of fallibility in clinicians' judgement with respect to malingering. Finally, there is some evidence suggesting that bona fide psychiatric patients can successfully manipulate the apparent severity of their psychopathology (Sherman, Trief, & Sprafkin, 1975). Collectively, this literature underscores the difficult challenge for the clinician faced with the would-be dissimulator; malingering remains a poorly understood phenomenon.

One approach to understanding malingering behavior has been to associate it with psychopathic personality. It is often assumed that psychopaths are more effective malingerers and are more prone to feigning mental illness in adversarial conditions (American Psychiatric Association,

1987; Clark; 1988; Naish, 1979; Yudofsky, 1985). The purpose of this study is to evaluate critically this association; much is assumed about its nature, but little has been substantiated. The first section will address the potential of psychopathy as a predictor of malingering behavior. Second, clinical and theoretical models of psychopathy will be outlined to provide a conceptual rationale for investigating the relationship. Third, existing empirical studies relevant to the problem will be reviewed and incorporated into hypotheses for the present study. Fourth, an experiment will be described that is the first to empirically and explicitly evaluate the association between psychopathy and malingering. Finally, the results and implications of this research will be discussed.

Psychopathy as a Correlate/Predictor of Malingering

"The pride of a doctor who has caught a malingerer is akin to that of a fisherman who has landed an enormous fish" (Asher, 1972, p. 145). This quote reflects the adversarial challenge for the clinician faced with a potential malingerer. The task is particularly difficult due to the fact the clinician can usually only be suspicious that the patient is feigning; "ground truth", or clear evidence of malingering, is seldom available. Thus, the putative expert on mental illness must consider the implications for an inaccurate diagnosis. If, for example, a malingerer is wrongly diagnosed as truly ill, the patient will achieve his

or her goals. On the other hand, the false classification of malingering will result in the refusal of medical and/or psychological care for someone truly in need. The clinician must be sensitive to these issues when assessing malingering potential.

Researchers and clinicians have investigated a number of assessment techniques to facilitate the detection of malingering. Developers of many objective measures of personality, such as the Minnesota Multiphasic Personality Inventory (MMPI) and Millon Clinical Multiaxial Inventory (MCMI), have incorporated validity scales (McKinley, Hathaway & Meehl, 1948; Millon, 1984). These scales have been researched and discussed in detail, and have some utility in detecting dissimulation (Gough, 1950; Greene, 1988; Schretlen, 1988). However, their ability to identify malingerers remains controversial (Rogers, Dolmetsch, & Cavanaugh, 1983; Ziskin, 1984). For example, Rogers (1983) has found that random MMPI protocols generated by computer produced elevations which under certain decision criteria would be classified as malingering. Some success has also been reported with a structured interview approach (Rogers, 1988), but research in this area is in its early stages. Other clinical techniques mentioned in the literature have included projective psychological tests (Stermac, 1988), psychophysiological techniques (Iocono & Patrick, 1988), hypnosis (Miller & Stava, 1988), and drug-assisted inquiry

(Rogers & Wettstein, 1988). There is a paucity of research using these procedures, however, and as such they have little demonstrated utility in detecting dissimulation.

Collectively, the strategies outlined above have fallen short of providing efficient means for detecting malingering. Another approach to the prediction of malingering has been to delineate its contextual correlates. A noteworthy example of this focus is the latest version of the Diagnostic and Statistic Manual of Mental Disorders (DSM-III-R; American Psychiatric Association, 1987), which suggests that suspicion of malingering should be increased in a "medicolegal context of presentation" (p.360). As a way of challenging this contextual approach, Grossman and Wasyliw (1988) evaluated the "stereotype" of the malingering Not Guilty by Reason of Insanity (NGRI) defendant. They noted that only a small minority of insanity defendants clearly malingered and found that, contrary to the stereotype, many defendants minimized their psychopathology (i.e., they were defensive). This effect has been noted elsewhere, for malingering is a rare phenomenon, even in most forensic settings (Kropp & Rogers, in press). Thus, it is clear that the "medicolegal" context endorsed by DSM-III-R cannot alone predict malingering behavior.

A promising approach to understanding dissimulation has been to investigate personality correlates. This strategy addresses the question, "Who should we suspect?" The

contextual factors discussed (legal cases, insurance claims) offer only limited clues, and cannot account for individual differences. Consideration of context does not, for example, explain why everyone charged with a serious offence or involved with workers compensation does not pretend to be more mentally or physically ill. It may be that, given the adversarial context described above, certain individuals are more inclined to choose malingering as an option.

Currently, all of the connections between malingering and aspects of the person are speculative. For example, the DSM-III-R indicates that non-compliant individuals may be more prone to malinger, but substantiation is not offered. As well, substance abusers have been described as prone to malingering and deception. Naish (1979) described alcoholics as "notorious liars and deceivers" (p.140). Similarly, Cunnien (1988) associated lying with eating disorders, serving to "cover up" addictive behavior. Snyder (1986) discussed the presence of pseudologia fantastica -- or pathological lying -- in borderline patients. This mendacity is purportedly related to a need for narcissistic gratification. As well, those with Machiavellian traits have been demonstrated to be effective deceivers (Kraut & Price, 1976). Although not researched to date, it can also be speculated that histrionic individuals -- that is, those with an over-dramatic flare and tendency to draw attention

to themselves -- may be more prone to exaggeration, if not malingering.

While these directions deserve more attention, the personality construct most commonly referred to in the dissimulation literature is antisocial personality disorder (Clark, 1988; Gorman, 1982; Yudofsky, 1985). It is also included in the DSM-III-R as one of four conditions under which to suspect malingering. As will be seen in a subsequent section, however, there is very little research directly supporting this association. Nonetheless, there is reason to believe that psychopathy might be a useful predictor of malingering behavior, for there is some evidence to suggest that the diagnosis of psychopathy may have useful predictive value with respect to antisocial behavior in general. For example, the construct has been demonstrated to be strongly related to future criminality (Hare, McPherson, & Forth, 1988), violent recidivism (Harris, Rice, & Cormier, 1991), and performance on conditional release from prison (Hart, Kropp & Hare; 1988). An important caveat is that this psychopathy research has emphasized the necessity of stringent diagnostic criteria, for in the past much research on sociopathy has used criteria virtually synonymous with criminality (Guze, 1976; Hare, 1985). This in turn has made differential predictions of behavior based on diagnosis virtually impossible. It is this lack of discriminative power that has, in part,

influenced the decision to investigate the utility of including more affective and interpersonal features in the DSM-IV definition of antisocial personality disorder (Hare, Hart, & Harpur, 1991). Therefore, if a rigorous diagnostic instrument were used, such as the Psychopathy Checklist (PCL) developed by Hare (1980), it might be hypothesized that psychopathic features can predict malingering behavior.

In sum, there is little known about the prediction of malingering, and further research is needed in all of the areas discussed in this section. Towards this end, the current study has adopted the "personality" approach to help delineate the correlates of malingering. An investigation of psychopathy and malingering is long overdue given the numerous untested assumptions about the relationship, and the potential predictive value of accurate psychopathy diagnoses. The following sections offer further conceptual and empirical rationale for this endeavor.

Psychopathy and Malingering: A Conceptual Link?

Deception in psychopaths: Clinical and theoretical assumptions. A litany of terms have been used in the literature to refer to the psychopath. The diagnostic classification of the disorder can be traced to Pinel's nineteenth century label, *manie sans delire*, which he applied to individuals who displayed extraordinarily aggressive behavior. Other terms for the disorder have included "moral insanity", "psychopathic inferiority" and

"hysteric psychopath" (McCord & McCord, 1964). More recently, the labels psychopath, sociopath, and antisocial personality disorder are commonly employed, often interchangeably. But despite the differences in terminology, currently there is general consensus amongst clinicians and researchers about the core characteristics of the disorder. These include a lack of remorse, poor empathic ability, and impulsivity (Doren, 1987; Hare, 1985; McCord & McCord, 1964). The exception to this rule, however, is the recent definition of antisocial personality disorder included in the DSM-III-R (American Psychological Association, 1987). It is based almost exclusively on behavioral symptoms, and is arguably overinclusive in criminal populations (Hare, 1980; Hart, Kropp, & Hare, 1988). Therefore, the DSM-III-R definition was not used for the current study. The operational definition of the psychopath generally employed in this discussion will be that described by Hare and colleagues (Hare, 1980). The validity of Hare's construct of psychopathy is supported by considerable research (Hare, 1980, 1985; Harpur, Hakstian, & Hare, 1988; Hare, Harpur, et al., 1990), and the definition originates from Cleckley's classic work, The Mask of Sanity (1982). Briefly, the Cleckley/Hare psychopath is a manipulative, glib, superficial, and emotionally detached individual who experiences no empathy or concern for others, and has no remorse for transgressions. Both the Cleckley

and Hare criteria are included in Appendices A and B, respectively.

While there are relatively few discussions in the literature of psychopaths and malingering behavior per se, there are a number of intuitive reasons to investigate the relationship. Thus, a number of clinical and theoretical accounts indirectly suggest that the psychopath may be adept at, and prone to malingering. In this way, most clinical descriptions of the psychopath make reference to a tendency and ability to lie, deceive and manipulate others. Cleckley (1982), for example, has emphasized that untruthfulness and insincerity are central features of the condition:

> The psychopath shows a remarkable disregard for truth and is to be trusted no more in his accounts of the past than in his promises for the future or his statement of present intentions. He gives the impression that he is incapable of ever attaining realistic comprehension of an attitude in other people that causes them to value truth and cherish truthfulness in themselves....Overemphasis, obvious glibness, and other traditional signs of the clever liar do not usually show in his words or in his manner. Whether there is reasonable chance for him to get away with the fraud or whether certain and easily foreseen detection is at hand, he is apparently unperturbed and does the same impressive job (p. 207).

There is remarkable agreement in the literature that lying and deception are key features of psychopathy. Yochelson and Samenow (1976) suggest that untruthfulness is the "second most widely cited characteristic" of the psychopath (unreliability is the first according to the authors). They note that some have interpreted that pervasive lying in the psychopath as an actual inability to tell the truth. Similarly, Doren (1987) suggests that lying is the feature for which the psychopath is best known: "They seem to lie to avoid punishment, to gain rewards, to manipulate people, and, sometimes, 'just because'" (p. 201). Doren warns that therapists working with psychopathic individuals must "expect" their patients to lie. Hare, Forth and Hart (1989) comment that while most people deceive occasionally, psychopaths "do so much more persistently and blatantly, and with considerably more panache" (p. 26). Finally, many others have included pathological lying as a core feature of psychopathy (Buss, 1966; Hare, 1970; McCord & McCord, 1964; Robins, 1966).

In sum, a review of clinical descriptions of psychopathy indicate that manipulative, deceptive behavior is inextricably linked with the concept of psychopathy. Moreover, it is believed to be pervasive both in adulthood and in the early childhoo manifestations of the disorder (Doren, 1987; Robins, 1966). There is, for example, evidence of excessive lying in conduct disordered children

and delinquent adolescents (Robins, 1966; Stouthamer-Loeber, 1986).

There have been a number of theoretical attempts to explain these deceptive tendencies and abilities. For example, Doren (1987), views the psychopathic individual as having an excessive concern with environmental control as a result of innate cortical underarousal (which he likens to the hyperactive child), and inadequate socialization, characterized by inconsistent discipline. Doren's model integrates several behavioral and biological models of psychopathy (e.g., Hare & Schalling, 1978) and his own clinical experience. It suggests that the psychopath has an extraordinary need for stimulation and reward. Psychopathic behaviors such as lying and manipulativeness serve to overcome "obstacles" -- typically other people -- to these desires. Moreover, because of a deficient ability to learn from experience (Hare, 1970), this behavior is perseverative, even in the face of negative consequences. In fact, Doren maintains that positive outcomes arising from interactions with others are not necessary for the experience to be rewarding. Over time the perceived control derived from the "challenge" of manipulating others is enough; the experience of controlling others becomes the reward. Thus, according to this model, controlling and manipulating others, usually through deception, is a key motivator for the psychopath.

Psychoanalytic explanations also cite the need for control, but have tended to focus on the concept of narcissism. Drawing on the writings of Kohut (1971) and Kernberg (1975), Leaff (1978) describes the psychopath as typical of the narcissistic personality. Because of inconsistent or negative early object relational experiences (probably parental interactions), the psychopath in this view has a need to omnipotent, as he is unable to trust others for fear of persecution. Mechanisms are invoked to help control for the aggression that is projected onto others. Thus, the manipulation and deception of others are again means to gain control over them and to reduce the threat of aggression. According to this view of the psychopath, having a healthy relationship is to risk loss and pain. He therefore seeks only relationships in which he has control and through which he can manipulate. Bursten (1973) sums up the process: "The manipulative personality repairs his narcissism by the dynamics of putting something over...that is, he does something to the other person" (p. 160).

Meloy (1988) has described psychopathy in object relational terms as an extreme, aggressive variation of narcissistic personality disorder. Meloy has expanded upon Bursten's notion of a manipulation cycle in interpersonal relationships. He describes a process through which the psychopath experiences a sense of exhilaration -- or

"contemptuous delight" -- following an act of deception. This result is achieved through the devaluation of the external object (i.e., the victim of the deception). The manipulative cycle and satisfaction derived from it are crucial for preserving and enhancing the psychopath's grandiose self; thus deception is, according to Meloy, "ubiquitous within the psychopathic process" (p. 120).

Interestingly, Meloy notes that as a result of the core need to deceive, psychopaths are likely prone to malingering behavior. He suggests, however, that the psychopath is seldom successful if he is otherwise free of psychopathology. On the other hand, a psychopathic individual may be adept at malingering if he can draw upon previous experience with mental illness. Meloy provides the examples of dissociative and psychotic disorders coexisting with psychopathy to illustrate this point. With respect to cases where a psychopath has a periodic functional psychotic disorder, Meloy states:

> In cases such as this, especially in a forensic setting, the clinician should reasonably expect malingering, or at least exaggeration, of psychotic symptoms... unless there is clear and convincing evidence that the psychosis genuinely exists at the time of the evaluation (p. 289).

Others have attempted to explain sociopathic behaviors such as manipulativeness and lying in sociobiological terms.

This approach assumes a genetic predisposition to certain behaviors which will in turn maximize an individuals contribution to the gene pool. Thus, rather than being viewed as maladaptive, psychopathic behavior is considered *adaptive*. In this way, MacMillan and Kofoed (1984) advance that the psychopath maximizes his or her number of offspring by mating with as many individuals as possible. The authors cite the promiscuity of psychopaths in the form of "cheating" behavior as evidence of this process. According to this model, psychopaths accomplish this strategy by successfully misrepresenting their status, access to resources, and intentions when forming a relationship. Thus, these deceptive behaviors are the result of a genetically influenced "choice".

Similarly, Harpending and Sobus (1987) note that deception evolved in sociopathy as a way of participating dishonestly in "the complex web of reciprocity and obligation in which most members of our species are entangled" (p.64). The authors draw upon simulated "games" research, and suggest that in social interactions an individual has a choice to (a) cooperate with others in order that all involved are rewarded (reciprocity), or (b) "cheat" and leave the situation and take all the rewards for his or her own. This model suggests that psychopaths have evolved to choose the second option, but to do so consistently means that they must keep on the move, for to

stay in one spot is to be held accountable. Thus, the "cheater" must stay mobile and learn to adapt to new social environments, and to conceal their intentions from others. This model, like that advanced by MacMillan and Kofoed, is consistent with a number of sociopathic behaviors.

Hare and colleagues (e.g., Hare, Forth & Hart, 1989) have hypothesized that psychopaths lack an affective dimension to their language, enabling them to lie with greater ease. Other authors have commented on this apparent deficit. Johns and Quay (1962) suggested that the psychopath "knows the words but not the music"(p. 217). Similarly, Cleckley (1982) asserted that "he can learn to use ordinary words...but the feeling itself does not come to pass" (p. 230). As well, there appears to be limited laboratory support for this process in psychopaths. For example, Williamson, Harpur, and Hare (in press) flashed letter-strings on a computer to prison inmates. Some of the strings formed "emotional" words, others were neutral. Previous research had demonstrated that normal subjects can more quickly recognize words with an emotional valence, and in some aspects show larger event-related potentials (ERP) to emotional words (Strauss, 1983). In this study, however, psychopaths failed to show this "normal" pattern of response (i.e., no difference between emotional and neutral words). Thus, certain affective components of language may be unavailable to the psychopath. As Hare et al. (1989) put

it, lying for psychopaths may be a relatively straightforward process of "moving words around." This phenomenon may help to explain why psychopaths are believed to be more effective than others at lying.

To summarize, the clinical descriptions and theoretical models described above portray the psychopath as conning, manipulative and deceitful. Given this literature, it is compelling to consider that the psychopath is a prime candidate to feign mental illness. It should be reiterated that the association has two components. First, theory and research by Hare and colleagues suggest that through a unique use of language the psychopath is a skilled deceiver. Further, Meloy (1988) has suggested that the psychopath might be particularly adept at utilizing prior experience with mental illness to malinger. Thus, it could be supposed that the psychopath has the capacity to malinger. Second, the explanatory/developmental models described indicate inclination and desire to manipulate, control and deceive others (e.g., Doren, 1987; MacMillan & Kofoed, 1984); therefore, the psychopath might also have the motivation to malinger.

Other psychopathic features facilitating deception.

There are a number of other features of the psychopath that likely contribute to the ability and tendency to lie and manipulate. For example, there is much discussion in the literature about the low level of anxiety experienced by

the psychopath. Cleckley (1982) often refers to the poise with which the psychopath can deceive. He attributes this in part to the absence of psychoneurotic manifestations or "nervousness". He notes the psychopath maintains unshakeable composure even during "the most solemn perjuries" (p.207). But while Cleckley and others (Eysenck, 1964; Hare, 1970) contend a low level of anticipatory anxiety exists, there is some controversy. There is some mention in the literature, for example, of the "neurotic psychopath" (Karpman, 1961). Hare (1970) has pointed out that this condition has also been variously referred to as *symptomatic psychopathy, secondary psychopathy, acting-out neurotic, neurotic delinquent,* and *neurotic character.* This distinction from "primary psychopathy" has usually been based upon the presence or absence of anxiety. Hare maintains that the neurotic psychopath differs from "true" psychopathy in that the antisocial behavior in the former case is simply a result of fundamental emotional difficulties. Unlike the true psychopath, these individuals can form meaningful relationships and can respond positively to intervention.

This reasoning suggests that if a strict definition of psychopathy is used (i.e., excluding "secondary" types), low anxiety may exist. There is considerable empirical evidence that anticipatory anxiety does not operate in psychopaths as it does with others (see Hare & Schalling, 1978). It

appears from laboratory research that cues associated with punishment do not produce sufficient anticipatory anxiety to inhibit antisocial behavior in psychopaths. This feature has been invoked to help explain the psychopath's inability to learn from experience (Hare, 1965, 1970; Lykken, 1957).

It has also been suggested that "primary" psychopaths are lower on both state and trait anxiety measures (Spielberger, Kling, & O'Hagan, 1978). On the other hand, Schalling (1978) has argued that psychopaths are not uniformly less anxious; it may be a question of what type of anxiety exists. She suggests that psychopaths are higher in somatic anxiety but lower in subjective or "psychic" anxiety. Hare and Jutai (1989), however, have demonstrated that this is likely not the case. They administered Schalling's (1978) Multicomponent Anxiety Scale (MCA) to a cohort of prison inmates. They reported that psychopathy ratings were negatively correlated with all measures of anxiety including somatic, muscular tension and "psychic" modalities.

In sum, it appears that anxiety probably does not have the inhibitory effect on psychopaths that it has on others. This is of theoretical significance to the present study, for if lower anxiety does exist, it may have bearing on a psychopath's ability to malinger. For example, Riggio, Tucker and Throckmorton (1988) evaluated the role of social skills in deception ability. In one condition, subjects

were asked to give "counterattitudinal" (things they did not believe in) messages while being videotaped (e.g., "The pledge of allegiance should not be mandatory in schools"). Judges were then asked to rate the believability of the deceptive individuals. The results suggested that expressive and socially tactful subjects were more effective at deception, whereas socially anxious individuals had less ability to deceive.

Other features commonly associated with psychopathy, such as superficial charm, lack of guilt, remorse and empathy, and callous disregard for the rights of others (Hare, 1985; McCord & McCord, 1964; Reid, 1978), may also contribute to the putative ability of a psychopath to malinger. Thus, superficial charm often makes the psychopath a likeable client, and may put clinicians and other health care workers "off guard" during assessment. As well, the lack of remorse and concern over consequences for his actions -- at least with respect to others welfare (and perhaps reputation) -- might allow the psychopath to easily feign illness.

With respect to this last point, Ekman (1985) describes the psychopath as a successful deceiver because he lacks "deception guilt." Such guilt is considered by Ekman to be one of the cardinal features that leads to detection. The psychopath lacks this guilt because he does not share the same social values as those he deceives. According to

Ekman, lying for the psychopath is "authorized" because the target is an adversary -- the victim becomes the wrongdoer.

These clinical features of the psychopath, combined with low anticipatory anxiety, are logically consistent with a capacity to malinger. Ekman (1985) sums up this point effectively:

> A failure to feel any guilt or shame about his misdeeds is considered the mark of a psychopath, if the lack of guilt or shame pervades all or most aspects of his life...There is agreement that neither guilt about lying nor fear of being caught will cause a psychopath to make mistakes when he lies (p. 67).

Psychopaths in forensic settings. A further reason to investigate a psychopathy-malingering link is that psychopathic features are highly representative in a number of criminal populations. This is significant, for as noted earlier, legal settings have been singled out as a likely context for malingering to occur. Estimates of the incidence of psychopathy (as defined by Hare) in penitentiary populations, for example, have ranged from 18 to 38 percent (Hare, 1985; Hare, Cox, & Hart, in press). In forensic psychiatric populations these estimates have ranged from 20 to 35 percent (Hare et al., in press). Thus, with the secondary gain associated with malingering in these populations, the psychopathic individual may have additional motivation (i.e., independent of the developmental factors

already described), as well as the means to feign mental illness. Moreover, as Hare et al. (1989) note, incarceration does not diminish the psychopath's adeptness at manipulation:

> The ability of psychopaths to deceive and con are just as great in prison as they are on the outside. Although some continually engage in disruptive institutional behavior others work the system to their own benefit (p. 26).

In fact, the incarcerated criminal may have advantages learned through experience with the criminal justice system. Gendreau, Irvine, and Knight (1973) have commented that by the time a prison psychologist evaluates an inmate, he may have already been assessed a number of times at a number of institutions, thus gaining valuable experience. This is an important point, for experienced inmates quickly learn the implications of performance on psychological tests. The present author remembers an experience as a research assistant in a medium security institution. One particularly resourceful -- and psychopathic -- research subject admitted that he had obtained an MMPI manual and was instructing others on how to obtain favorable protocols prior to parole reviews.

A better known case of malingering on behalf of a psychopathic individual in a legal context occurred in the homicide trial of Kenneth Bianchi, better known as the

"Hillside Strangler". Mr. Bianchi was charged with and ultimately convicted of a series of stranglings in Washington State. During the pretrial process, he claimed amnesia for the periods surrounding the crimes. As well, he claimed to have a multiple personality, and succeeded in convincing several experts that he had this rare condition. It was eventually demonstrated that Bianchi was simulating these symptoms and had been planning his defense for years (Orne, Dinges, & Orne, 1984; Watkins, 1984).

Interestingly, one incentive for malingering in a forensic context centers around the implications of the very label of psychopath. The term is unquestionably pejorative and can influence decisions about institutional privileges and early conditional release. Thus, it is to one's advantage in this situation to appear as nonpsychopathic as possible. In fact, there is some evidence that the psychopathic deviate scale of the MMPI can be manipulated in either direction. Lawton (1963), for example, administered the MMPI to groups of high school and college students and demonstrated that all subjects could both simulate and minimize delinquency when instructed. Thus, a possible scenario in a forensic setting is the psychopath manipulating the situation to look less "bad" (psychopathic) and more "mad" (mentally ill). However, a subsequent study reported by Lawton and Kleban (1965) found that those diagnosed as "sociopaths" according to the MMPI could <u>not</u>

effectively minimize their scale 4 scores. In other words, the sociopaths in this study could not simulate "normalcy". It is important to note, however, that MMPI profiles of "sociopathy" lack validity (Hare, 1985). Nonetheless, if this result generalizes, it may actually increase the need for psychopaths to exaggerate other kinds of illness in order to receive more sympathetic treatment from decision-makers. Thus, malingering, not minimizing, may be the salvation of the psychopath in the criminal context.

Criminogenic model of malingering. The assumed relationship between malingering and psychopathy can be seen in the evolution of models of malingering. Early writers proposed a psychopathogenic process of malingering in which dissimulation represented an ineffectual coping with an underlying disorder. Rogers (1990) has labeled this the pathogenic model of malingering. This definition can be traced to Carl Jung in 1903 (Jung, 1957), was elaborated upon by Sigmund Freud, and continues to have its modern day adherents (Hay, 1983). According to this model, malingering is seen as the early stages of a more serious disease. This view has been widely criticized, however, as it became increasingly apparent that many malingerers did not subsequently become mentally ill (Miller, 1961). Contrary to the models expectations, it has been noted that many malingerers showed remarkable improvement in their problems once an external goal was achieved (Resnick, 1988).

With the loss in popularity of the pathogenic explanations, the medical and psychological literature has seen the emergence of a criminogenic model of malingering (Rogers, 1990). Thus, there has been a shift from a generally sympathetic view of the malingerer as an unwitting "victim" of his or her disorder, to a more punitive perception of the malingerer as a deliberate "con." The criminogenic model forms the basis of the American Psychiatric Association's (APA) current classification system of mental disorders (American Psychiatric Association, 1987). Some of these criteria have already been described, but for purposes of illustrating the model, they are reiterated here. Specifically, the DSM-III-R suggests that any combination of the following factors raise a high index of suspicion for malingering:

1. medicolegal context of presentation (e.g., the person's being referred by his or her attorney to the physician for examination);

2. marked discrepancy between the person's claimed distress or disability and the objective findings;

3. lack of cooperation with diagnostic evaluation and in complying with prescribed treatment regimen;

4. the presence of antisocial personality disorder (APD).

This model provides a combination of characterological variables (APD), contextual variables (medicolegal

evaluations), and interpersonal variables (uncooperativeness). The unifying theme of these factors is that of "badness"; namely a bad person, in a bad situation, behaving badly. The APA offered no explanation for this paradigmatic shift and by adopting such a model contributes, at least implicitly, to a prevailing negative public image of the malingerer. Available research would suggest that only a minority of malingerers have one or more of these indices (Rogers, 1990) and suggests that the adoption of this model is, at best, premature. As well, the use of uncooperativeness as a factor in establishing malingering is illogical given the substantial percentage of patients are either unable or unwilling to participate actively in their assessment and/or treatment. Like the APD diagnosis, it is simply an overinclusive criterion, and lacks established empirical support. Finally, the key assumption about the antisocial nature of malingerers is largely unsubstantiated (Clark, 1988; Kropp & Rogers, in press).

If the criminogenic model of malingering is not supported by research, it may be that a reconceptualization of malingering is necessary, with a return to a less pejorative view. From the perspective of the would-be malingerer, feigning an illness may be an adaptive effort to deal with difficult circumstances. Such an explanation fits within an <u>adaptational</u> model of malingering (Rogers, 1990; Kropp & Rogers, in press). Assumptions of this adaptational

model are threefold: (a) a person perceives the evaluation/treatment as involuntary or adversarial, (b) the person perceives that he or she has either something to lose from self-disclosure or something to gain from malingering, and (c) the person does not perceive a more effective means to achieve his or her desired goal.

Malingering in the armed forces offers an instructive example of the adaptational model. Concern for feigned mental illness increases dramatically during wartime. In such times, an adversarial situation (such as a military draft) creates potential rewards for "dodging," namely avoiding combat and possible death. For example, it has been noted that in World War I the Austrian army experienced only a handful of malingerers in the early stages of the war, but that a mass phenomenon, estimated at 100,000, occurred as the casualties mounted (Rogers, 1990). Similarly, it has been believed that in criminal forensic settings, particularly when defendants are faced with very serious charges, many more individuals feign mental illness than under comparatively benign circumstances (Grossman & Wasyliw, 1988). Finally, it can be speculated that many inner city hospital admissions are related to somewhat desperate attempts by homeless individuals to obtain a decent meal, accommodations, and a respite from extremely difficult living conditions.

The adaptational model avoids the pejorative and moralistic assumptions about the malingerer, placing less "blame" on the person, and advocates a contextual understanding the malingering process. Such a model recognizes the complexity of individual circumstances and focuses on the adversarial nature of these circumstances. As a way of "normalizing" malingering, this model has been elaborated upon to give examples of malingering behavior in everyday life (Kropp & Rogers, in press). For example, "Not tonight I have a headache", is a common instance of this model. Seen in this light, malingering may be construed as one of many possible options for individuals who find themselves in a very difficult situation, and not necessarily only the domain of the bad or psychopathic individual. The present study will directly test the criminogenic model, and the discussion section will provide a forum to consider the more sympathetic adaptational approach to malingering.

Empirical Studies of Psychopathy and Malingering

A review of the empirical literature was conducted to address three questions raised above: (a) Do psychopaths have a greater capacity to malinger? (b) Is there evidence that malingerers are psychopathic? (c) Do psychopaths tend to exaggerate their psychopathology?

Psychopath's capacity to malinger. There are no studies directly investigating psychopaths' capacity to malinger as compared to nonpsychopaths. However, several studies have used simulation conditions to address the ability of antisocial or criminal subjects to feign mental illness. For example, Hunt (1948) reported that a group of court martialed Navy prisoners were able to feign maladjustment on the MMPI F-K scale, despite being unable to fake good adjustment. It is unclear, however, how typical these subjects were of civilian criminal populations in general, and psychopaths in particular.

Conversely, Gendreau, Irvine and Knight (1973), reported that prisoners had no difficulty feigning both good and bad adjustment, but could not fool the MMPI validity scales. The results indicated that both the F scale and F-K index were 100% successful at separating feigners from honest responders, and the Dissimulation scale (Ds: Gough, 1950) was 96% accurate (N=24). Thus, while these inmates appeared to be able to mimic pathology on the MMPI clinical indices, they could not do so without impunity -- that is, the validity scales easily detected deception.

Rogers, Gillis, and Bagby (1990) also did not find a relationship between antisocial behavior and ability to malinger in a simulation design. In fact, the results reported the contrary. Rogers et al. noted that correctional simulators scored much higher on scales from

the Structured Interview of Reported Symptoms (SIRS: See Measures), and hence could be detected more readily, than both community simulators and suspected psychiatric malingers. Moreover, n ne of the correctional respondents were misclassified as "honest" (i.e., they could not "fool" the SIRS measure), compared to 17.5% of the overall SIRS validation sample. The authors concluded that the results refute the association between malingering and antisocial personality disorder specified in the DSM-III-R. However, this study used a fairly wide definition of antisocial behavior, and based group discrimination neither upon DSM-III-R nor other key sociopathic variables such as manipulativeness and lying ability. As such, criminal behavior was equated with antisocial personality. Nonetheless, it is significant that *none* of the inmates could fool the SIRS, possibly making a narrower definition irrelevant.

Schretlan and Arkowitz (1990) included correctional inmates in a study of the effectiveness of a psychological test battery in detecting deception. They reported an 85% classification accuracy for those instructed to fake illness, and a zero percent false positive rate. Thus, inmates in this study were apparently not effective at dissimulation. The authors offered no comment on the particular features of those that were not accurately classified. It is therefore unclear whether or not

psychopathy was a feature of effective malingers. As with the Rogers et al. study, this study did not focus on psychopaths or those with antisocial personality disorder per se, but used correctional inmates in general.

It is appropriate to include a brief discussion of psychopathy and the ability to "fool" the polygraph. While this research does not specifically address malingering, it is relevant to a discussion of the psychopath's ability to deceive under reasonably stressful conditions. Raskin and Hare (1978) designed simulation conditions where 2 groups of inmates (24 psychopaths and 24 nonpsychopaths) were separated into "guilty" and "innocent" groups. The "guilty" subjects stole $20 in a mock crime. Blind examiners then interviewed each subject using a polygraph, and monetary reward was offered for successful deception. This study directly tested assumptions that psychopaths could effectively "fool" a polygraph because of their hyporesponsivity to intense, noxious or painful stimuli (Hare, 1978). However, psychopaths were as readily detected as nonpsychopaths in the study and contrary to expectations showed evidence of stronger electrodermal and heart rate responses.

Patrick and Iacono (1989) replicated the Raskin and Hare study while attempting to improve on the ecological validity of the design. Rather than offer individual awards, financial gain was offered to the group as a whole

provided nobody failed; those that were detected would be revealed to the rest of the subjects. This condition was thought to make the subsequent polygraph evaluation more stressful. Despite this difference, the overall hit-rate for detection was high (87%) and there were still no differences between psychopathy groups in success rates. Thus, the evidence is fairly convincing that psychopaths are no more successful than nonpsychopaths at deceiving the polygraph under simulated conditions.

To summarize, little can be concluded from the literature with respect to the capacity of psychopaths to malinger. As noted, no studies have directly compared psychopaths and nonpsychopaths on the ability to feign mental illness. The polygraph literature questions the psychopath's assumed ability to deceive in a different context, but this is not necessarily generalizable to malingering or to real-life situations. There is some suggestion that criminals in general cannot feign illness more effectively than controls, but this research has not discriminated between subsets of criminals -- specifically, psychopaths and nonpsychopaths. It is possible that stringent criteria for psychopathy are necessary to detect between-group differences in malingering tendencies/abilities, an issue that the current study will address.

Psychopathy in malingerers. There have been two reports addressing evidence of psychopathy in malingerers. Guttmacher and Weihofen (1952) summarized a number of reports during World War II that documented the incidence of malingering amongst soldiers. The analysis revealed that a large percentage of servicemen assessed as malingerers were also diagnosed as sociopathic. However, the methodology is not fully explained, and the specific studies are not referenced. Hence it is difficult to interpret the claim by Guttmacher and Weihofen. In particular, it is unclear whether or not the malingering and sociopath diagnoses were independent (i.e., individuals may have been diagnosed psychopaths because they malingered). The authors seem to suggest, however, that psychopaths' malingering in these cases was conscious and premeditated, and could be distinguished from the unconsciously motivated dissimulation of nonpsychopaths.

Sierles (1984) administered a 33-item multiple-choice anonymous questionnaire to 159 Veterans Administration hospital patients. The questionnaire included questions from the Feighner criteria for hysteria (Feighner et al., 1972), and several questions directly addressing malingering behavior (e.g., "Have you ever faked an illness?"). These questions were combined to form a malingering index. Also included on the questionnaire were a number of questions designed to measure "sociopathic behavior patterns". These

items were also derived from the Feighner criteria. The authors reported a significant correlation between scores on the malingering index and the sociopathy measure, and that sociopathy was more predictive of malingering behavior than drug and alcohol abuse, race, and age. Criticisms of this study are its reliance on self-report measures (of both sociopathy and malingering) and the use of a strictly behavioral definition of sociopathy. Nonetheless, this study taken together with the Guttmacher and Weihofen report provides tentative support for the presence of psychopathic features in detected/self-confessed malingerers.

Tendency to feign illness. There is some suggestion in the literature that psychopaths may have a tendency to overreport symptoms. Hare, Forth, and Hart (1989) evaluated MMPI and Millon Clinical Multiaxial Inventory (MCMI) results from two large sample of federal inmates, and a sample of "fitness to stand trial" remands in a provincial forensic psychiatric facility. The results showed a positive correlation between psychopathy scores and the MMPI F scale. In one of the federal inmate samples this correlation was statistically significant. In all three samples, Factor 2 of the PCL (primarily measuring criminal behavior; Factor 1 measures affective/interpersonal variables) was responsible for the relationship. Correlations with Factor 1 were insignificant. The F-K index was similarly correlated (but not significantly) with PCL scores. Thus, there was a weak

tendency for psychopaths to claim obvious symptoms on the MMPI. The authors qualified these results, however, by noting that the tendency to report symptoms was within normal limits, and not necessarily clinically significant.

Hare et al. (1989) found similar results for the same samples using the Sum 1-8 validity measure of the MCMI (Millon, 1983). This index reflects a general tendency to claim symptoms when scores are high. Low scores represent a tendency to deny symptoms. As with the MMPI result, Factor 2 of the PCL was the strongest predictor of Sum 1-8 scores, and the correlation approached significance. Again, however, the relationship was weak and scores were not general in the range considered clinically relevant.

These results weakly support the contention that psychopaths may be more likely to claim symptoms in forensic settings. However, an alternative hypothesis might be that they truly do experience more legitimate difficulties (see, for example, above discussion of the "neurotic psychopath"). There is little empirical evidence to sort out this problem. One way to address this question in future research is to include measures of strictly "bogus" symptoms to see if preposterous (or extremely unlikely) complaints are endorsed more often by psychopaths. This strategy is incorporated into the current study.

One study of medical complaints (Hare & Jutai, 1986) suggests that it is unlikely that psychopaths experience

more legitimate psychopathology than nonpsychopaths. The investigators found no relationship between psychopathy and self-reported somatic and psychosomatic complaints including autonomic, gastrointestinal, cardiovascular and muscle tension disturbances. The study indicated no differences between psychopathy groups in the self-reported number, severity, and type of symptoms that brought inmates to seek medical treatment. However, subject reports were then corroborated by reviewing medical charts. It was the practice of medical staff to make comments on the charts about the judged legitimacy of inmate complaints. The researchers found a significant correlation between complaints judged to be "bogus" and ratings of psychopathy. Inmates with high ratings of psychopathy made more than four times as many perceived illegitimate complaints. Thus, excluding bogus symptoms, psychopaths actually had fewer somatic difficulties than other inmates. It was concluded that psychopathic individuals were making use of the medical facilities primarily to receive special privileges such as receiving drugs or avoiding work. Although this effect was found for primarily somatic ailments, it could be hypothesized that a similar pattern of psychopathological complaints might exist.

Proposed Study

The above review demonstrates substantial rationale for investigating the association between psychopathy and malingering. The review also reveals a virtual absence of empirical research addressing the question. The current study is an attempt to fill this void. It is the first to evaluate systematically the association between psychopathy and feigned mental illness using structured, comprehensive and valid measures of both (see Measures). The study will address the relationship by investigating three related questions: (a) Can those diagnosed as psychopathic malinger more effectively than others? (b) Are individuals who malinger effectively more likely to be psychopathic than those who malinger poorly? (c) Do psychopaths instructed to be honest tend to malinger/exaggerate more often than nonpsychopaths? The general goals of this work are as follows:

1) To further the understanding of the correlates of malingering by exploring personality features of dissimulators (i.e., psychopathic personality).

2) To investigate the possibility that carefully diagnosed psychopaths can effectively "fool" tests designed to detect malingering.

3) To explore whether or not psychopaths do malinger/exaggerate or attempt such in a medicolegal context, regardless of ability.

4) To contribute to the construct validity of "psychopathy".

Hypotheses

Although the goals of this study are largely exploratory due to the dearth of literature in the area, some tentative hypotheses can be entertained. First, although there is little research on the capacity of psychopaths to malinger, the clinical lore described lead to a hypothesis that psychopathic individuals will be more effective malingerers than nonpsychopaths. This hypothesis, must be tempered, however, by related literature indicating that criminals in general are ineffective dissimulators, and that psychopaths are (a) no more intelligent than nonpsychopaths (Hare, 1970), and (b) no more effective than nonpsychopaths at fooling a polygraph under simulation conditions (Patrick & Iacono, 1989; Raskin & Hare, 1978).

Second, the limited research on psychopathy and malingering suggests that effective malingerers may be more likely to be psychopathic (e.g., Sierles, 1984). This effect is hypothesized to occur in the current study.

Finally, based on the clinical literature and limited research (Hare et al., 1989; Hare & Jutai, 1986) it is hypothesized that psychopaths will have a greater tendency than nonpsychopaths to report symptoms (including illegitimate complaints) if instructed to be "honest" about their mental health.

METHOD

Subjects

Subjects were recruited from the Ontario Correctional Institute (OCI), a provincial facility housing an average of 200 male residents. These inmates are considered to be "psychologically-knowledgeable", as each receives a comprehensive psychological assessment and is involved in some type of treatment or educational program. Admission to the institution is contingent on the presence of a "treatable" disorder. Typical programs at OCI are anger management groups, sex offender treatment, and substance abuse counselling. For the purposes of this study, 100 residents were selected from a pool of 145 volunteers. The selection was based on psychopathy ratings derived from volunteers' institutional files (see Procedure for criteria). Of the 100 subjects, 94 identified themselves as caucasian.

It is important to note that the volunteers were believed to be free of major mental illness. Although current mental status was not measured in the study, it was known that serious mental illness was an exclusion criterion for admission to OCI. As a further check, however, it was decided to look at scores on the M Test Schizophrenia Scale (see Instruments) for the 50 subjects instructed to be honest in the study. It was observed that the mean score of 2.24 (see Results) was comparable to the mean of 2.46

reported for university students instructed to be honest in the initial validation study of the M Test (Beaber, Marston, Michelli, & Mills, 1985). Moreover, the mean score for schizophrenic subjects in the Beaber et al. study was 4.46 suggesting that major mental illness was likely not a confound in the present study.

Instruments

The Psychopathy Checklist - Screening Version (PCL-SV).

Subjects were classified into psychopathic and nonpsychopathic groups using ratings on the PCL-SV, a 12-item scale developed as a screening instrument for assessing psychopathy in both clinical and forensic settings (Hare, Cox, & Hart, in press). It was constructed with the aim that it be conceptually and empirically related to the Psychopathy Checklist - Revised (PCL-R) developed by Hare (1980, 1991). The PCL-R is a 20-item research scale that measures the degree to which an inmate corresponds to a prototypical description of psychopathy discussed in the literature (cf., Cleckley, 1982; Hare, 1970; McCord & McCord, 1964). The reliability and validity of the PCL-R are well established and have been discussed extensively in the literature (Hare, 1985, 1991; Harpur, Hakstian, & Hare, 1988; Hart, Kropp, & Hare, 1988).

Like its predecessor, the PCL-SV measures both behavioral and affective/interpersonal factors considered central to psychopathy. Each item is scored on a 3-point

scale on the basis of interview and/or institutional file information, with scores ranging from 0 to 24 (see Appendix C for items). The first six items (Part 1) are designed to measure affective and interpersonal features of the disorder such as superficiality and lack of empathy, while items 7 to 12 (Part 2) tap "behavioral" features such as antisocial conduct and irresponsibility. The scale was validated using 10 samples from four different settings: forensic/nonpsychiatric, forensic/psychiatric, civil/psychiatric, and civil/nonpsychiatric. Internal consistency measured by Cronbach's Alpha coefficient ranged from .72 to .91 in the 10 samples. Intraclass correlations range from .83 to .94, demonstrating good interrater reliability. Reported correlations with total score on the PCL-R are .78 for a forensic psychiatric population, .79 in a correctional institution, and .81 in college students.

Structured Clinical Interview for the DSM-III-R (SCID). Subjects were assessed according to the DSM-III-R criteria for antisocial personality disorder (APD) as a validity check for the psychopathy ratings. It was also desirable to have subjects assessed according to currently accepted criteria (i.e., by the American Psychiatric Association) for use in supplementary analyses (see Results). The section of the SCID used to make diagnoses of APD was used for this purpose (Spitzer, Williams, & Gibbons, 1987). The SCID is a fully structured interview designed to correspond to DSM-

III-R diagnoses. Both persons administering the interviews had extensive experience in the use of structured interviews of this sort. Questions were given according to standard protocol. APD diagnoses were derived from simply adding childhood symptoms (as a rule-in procedure), and subsequently summing adult symptoms if the childhood criteria were met. Four or more adult symptoms merited an APD diagnosis.

Structured Interview of Reported Symptoms. The subscales of the Structured Interview of Reported Symptoms (SIRS) were used as dependent measures of malingering abilities/tendencies in the subjects. The SIRS refers to two 80-item alternate form questionnaires designed specifically to detect malingering (Rogers, 1986). The items were chosen from an initial pool of 330; the pool was selected following an extensive review of empirical and clinical accounts of malingering and deception (see Appendix D for the SIRS questionnaires). The most recent version has 13 subscales based on different strategies for detection of deception. A listing of these strategies follows (also see Rogers, Gillis, Dickens, & Bagby, 1991).

1. Direct Appraisal of Honesty (DA). These questions directly address patients self-report honesty, particularly with mental health professionals. A sample item is, *Do you sometimes like to fool or mislead doctors?*

2. Defensive Symptoms (DS). Symptoms on this scale were chosen to represent a variety of everyday difficulties that most people experience to some degree. Greene (1988) has suggested that denial of such symptoms may represent defensiveness. A similar procedure is used by the well-known MMPI K-Scale (Hathaway & McKinley, 1942). A sample item is, *Do you sometimes worry that others might not like you?*

3. Rare Symptoms (RS). This strategy asks about bona fide symptoms that are experienced very infrequently by psychiatric patients. For example, *Do you sometimes feel like you are physically outside your own body?*

4. Improbable or Absurd Symptoms (IA). These symptoms are implausible and have a preposterous quality to them. As such, if endorsed they are unlikely to be true. A sample item is, *Does the furniture where you live seem to change its shape and color from day to day?*

5. Symptom Combination (SC). These questions ask about the co-occurrence of bona fide psychiatric symptoms that rarely occur together: e.g., *At times when you feel hopeless, do you also feel light-headed or faint?*

6. Overly Specified Symptoms (OS). This strategy asks questions using an unrealistic degree of precision. A sample item is, *Do people seem to criticize you more on Wednesdays than on any other day?*

7. Symptom Onset and Resolution (SO). Symptoms in this scale are characterized by a rapid onset and/or disappearance. Such a course is atypical of most mental disorders. A sample item is, *Have you ever woken up one morning and realized that all of your problems were gone; that you were feeling completely o.k.?*

8. Blatant Symptoms (BL). This strategy is based on MMPI research (Greene, 1980) that has demonstrated that malingerers overendorse obvious indicators of mental illness. An example is, *Do you have any major problems with hearing voices that aren't really there?*

9. Subtle Symptoms (SU). This scale includes symptoms that untrained individuals would not consider to be signs of mental illness: e.g., *Do you have any major problems with sleeping too much?*

10. Severity of Symptoms (SEV). This strategy is premised on the observation that many malingers will endorse high numbers of symptoms of extraordinary severity. The scale consists of 32 items that, if endorsed initially, are asked again with the follow up: *The difficulty you mentioned with [insert symptom], is it unbearable or too painful to stand?*

11. Selectivity of Symptoms (SEL). This technique attempts to measure whether or not a patient is indiscriminantly endorsing symptoms. The scale score is simply the sum responses to 32 symptoms.

12. Inconsistency of Symptoms (SEL). A set of 32 clinical inquiries are repeated at the end of the SIRS interview to determined the consistency of the patient's self-report.

13. Reported Versus Observed Symptoms (RO). This strategy asks questions about observable behavior. Responses can then be directly compared to the clinical observations of the interviewer. A sample item is, *Do you move your feet a lot when sitting in a chair?*

In sum, eleven of the scales were designed to detect malingering, one measures defensiveness, and one contains questions directly appraising past and present malingering behavior. Rogers, Gillis, and Bagby (1990) have also reported the use of a <u>total</u> SIRS scale for measuring tendency to over-report symptoms. On each of the scales, with the exception of the defensiveness index, a high score represents a tendency to exaggerate or malinger mental illness. Alpha coefficients and item-scale correlations have been reported as measures of the subscales internal consistency (Rogers et al., 1990; Rogers et al., 1991). Alpha coefficients ranged from .66 (Symptom Onset and Resolution) to .92 (Blatant and Subtle scales). Mean item-scale correlations ranged from .19 (Defensiveness) to .49 (Symptom Onset and Resolution). Interrater reliabilities were uniformly high, ranging from .89 (RS) to 1.00 (SEL, SEV).

The SIRS authors also report discriminatory power for classifying simulators and honest responders (88% classification rate using simulation designs). Rogers et al. (1990) report statistically significant differences (at $p.< .0001$) between honest and simulation conditions. Moreover, the scales appear to be sensitive in distinguishing between suspected real-life malingerers and bona fide psychiatric patients. Nine of 13 subscales showed significantly higher SIRS scale scores for sus ected malingerers. A potential limitation of the SIRS utility, however, is that the scales do not equally discriminate between simulators/malingerers and honest responders. For example, neither DA nor SO scales differentiated between suspected malingerers and inpatients. For this reason, of the eleven malingering scales, a subset of the 8 best discriminators, as reported by Rogers (1991, in press), were selected as measures for analyses. Where appropriate the defensiveness, direct appraisal, and total SIRS scales were also used to evaluate specific hypotheses.

Some concurrent validity for the SIRS has been established (Rogers, Gillis, Dickens, & Bagby, 1991). Scale correlations with the MMPI F-scale ranged from .55 (OS) to .80 (BL). Most of the subscale correlations exceeded .70. The SIRS scales also correlated with the M-test, as self-report measure of malingering (see below). Mean correlations in the predicted directions were .72 for the M-

test "Malingering" scale, .67 for the "Confusion" scale, and .65 for the "Schizophrenic" scale.

In sum, the SIRS appears to be a reliable and valid measure of malingering (Rogers, et al., 1991). It is, however, in its early stages of development, and further research is necessary. Nonetheless, it was chosen for use in this study because it is currently the most thorough and psychometrically sound structured measure of malingering in the literature.

The M Test. The M Test was used in this study as an additional measure of malingering ability and tendency. The test was developed for the purpose of distinguishing between schizophrenia and malingering (Beaber, Marston, Michelli, & Mills, 1985). It is a self-report measure consisting of 8 confusion items (C Scale), 15 malingering indicators (M Scale), and 10 true indicators of schizophrenia (S Scale). Beaber et al. (1985) reported that the C scale correctly classified 93.7% of true schizophrenic patients and 52.5% of students instructed to malinger. The M scale classified these two groups at rates of 87.7% and 73.1% respectively. Finally, using a combination of the C and M scales the authors reported a detection rate for malingers of 78.2% and an overall classification accuracy of 82.6% (see Appendix E)..

File information. Each volunteer's institutional files were reviewed to collect demographic information and

criminal history variables. These files were also used to make both initial psychopathy screenings and full interrater psychopathy assessments (see Procedure). Relevant file information included probation pre-sentence reports, admission records, case managers' progress notes, categories of criminal convictions (e.g., fraud, property, violence), and psychological and psychiatric reports.

Design

The study primarily employed a 2 X 2 between subjects design. Subjects were initially sorted into psychopathic and nonpsychopathic groups (see Procedure) and then randomly assigned to either simulated malingering or honest conditions. Of particular interest for addressing the hypotheses were the simple main effects for psychopathy group. The dependent measures were the SIRS and M Test scales. Thus a MANOVA model was used for analyses. A power calculation to determine the appropriate number of subjects was conducted prior to the experiment according to procedures outline in Keppel (1982). The variance estimate used for this calculation was based on analyses of the SIRS reported in Rogers et al. (1990). It was determined that 25 subjects in each group would be sufficient to detect an effect size of 11.5 on total SIRS score (this was the difference reported between correctional inmates and college students in past research) at an alpha level of .01. Power

was set at .80. Thus, exactly 25 subjects were assigned to each of the 4 cells in the experiment.

Procedure

The study proceeded in two stages. First, all volunteers were rated on the PCL-SV and assigned to experimental conditions. The second stage consisted of the administration of the SIRS, M Test and SCID questions to selected inmates.

The initial psychopathy screening was based only on inmate file information, as time restraints did not allow an extra session with each volunteer for a pretest interview. All volunteers were asked to sign a consent form that included a release of file information (see Appendix F), and were informed that all information collected was to be kept confidential. The screenings were made by three senior graduate students in clinical psychology, all with extensive training in the use of the PCL-SV.

. The psychopathy scores obtained from the screenings were normally distributed with a mean of 13.62 and standard deviation of 5.29. This sample was very similar to those forensic samples described by the scale developers (cf. Hare et al., in press). Interrater reliabilities were computed on 15 files (including all possible combinations of raters). For individual items, Pearson correlation coefficients ranged from .39 (superficiality) to .98 (adult antisocial

behavior). The reliability coefficient for total score was .96.

Following the screening, volunteers were ordered according to PCL score, and the top and bottom 50 were selected for the second stage (out of a total of 145). This strategy was to ensure the selection of extreme groups. As well, to ensure equivalence of groups, subjects were matched according to PCL score before being assigned to experimental conditions (simulation versus honest).

It is important to note that the validity of file assessments was not considered a serious limitation for three reasons. First is the high interrater agreement reported above. Second, the PCL-R has proven reliable when scored exclusively from file information (Hart & Hare, 1989; Harris, Rice, & Cormier, 1991; Wong, 1985). Third, following the completion of the dependent measures in the second stage of the study, a second reliability check was made on an additional fifteen inmates by making a more thorough evaluation of psychopathy using interview and file data. Subsequently, the PCL-SV was completed again. In all cases, the second assessment was conducted by a different researcher who was blind to the initial screening score. The Pearson correlation coefficients for these 15 subjects ranged from .44 (lacks remorse) to .89 (adolescent antisocial behavior). The correlation for total score was .94. In no case did the second score merit a change from

initial classification into psychopathic or nonpsychopathic groups.

The second stage involved a 45-minute SIRS interview, a 15-minute administration of the M Test, APD questions from the SCID, and for 15 subjects, the PCL-SV interview. Two interviewers implemented this stage of the study. Both researchers were trained in the use of all instruments. In the case of the SIRS, one of the administrators was the developer of the instrument and trained the other in its use. Interrater correlations for 10 training cases (using bona fide patients at the Metropolitan Toronto Forensic Service) ranged from .92 (RA) to 1.00 (SEL) for the SIRS scales.

Interviewers were blind to the assignment of malingering and honest conditions to avoid biased recording of responses. This was ensured by having a research assistant match the subjects and assign conditions. For each volunteer, the assistant then prepared an envelope with his instructions. At the beginning of each interview session the subject was given the envelope and the testing proceeded when the volunteer indicated he was ready. Instructions for those in the malingering group were as follows:

> In this research study, you will be asked to pretend that you have a severe mental illness which is affecting your thoughts, emotions, and daily activities. To make this more realistic, I would like

you to imagine that correctional facilities are being changed and only residents with major psychiatric problems will be allowed to stay in the Ontario Correctional Institute. Those without such problems are to be shifted to a more secure facility in Northern Ontario which does not yet have educational or recreational programs. Your goal is to pretend that you are mentally ill to such a degree that you will be allowed to stay in Brampton. Although this is only for a research experiment, please try to get into the role as much as possible. Try to be believable and convincing. If you are successful at appearing mental y ill you will have an additional $5.00 placed in your resident's account.

The instructions for the honest condition were as follows:

In this research study you will be asked to be open and honest about any problems affecting your thoughts, emotions, and daily activities. To make this more realistic, I would like you to imagine that this is a routine evaluation and that you are interested in creating an honest and accurate picture of yourself. Your results are completely confidential and will not be made available to any members of the OCI staff.

Each subject was paid $5 for his participation in the second stage of the study. The consent form (Appendix F) explained that everyone would receive at least $5.00, but if

they were asked to malinger an additional $5.00 would be given for effective presentation. Even though only two-thirds of the volunteers were included in the present study, it was possible to promise all volunteers the money by using the remaining 45 subjects (the "middle" psychopathy group) in a second malingering study (Rogers, Kropp, Dickens, & Bagby, in press).

RESULTS

Demographics

The mean age of the entire sample was 30.8 (N=100). There was no difference between simulation and honest groups in age, but psychopaths were significantly younger than nonpsychopaths. The mean ages for the two groups were 28.3 (SD = 7.4) and 33.2 (SD = 9.53) respectively, $t(98) = -2.85$, $p < .005$. Because of the theoretical importance of experience to malingering ability/tendencies (see Introduction), it was decided to include age as a covariate in subsequent analyses looking at psychopathy group differences.

Mean years of education for the entire sample was 10.6. There were no differences in education or mean PCL score between simulation and honest groups. Similarly, there was no difference between psychopathy groups in education. There were, however, some significant differences between psychopathy groups on the criminal offense categories. Chi-square tests using a Bonferroni corrected significance level of $p < .01$ indicated that a significantly greater proportion of psychopaths had committed property, fraud, and miscellaneous offences, whereas nonpsychopaths were more likely to be convicted of sexual and violent offences (see Table 1). Thus, it appeared that the psychopathy groups differed in terms of criminal history. It should be noted, however, that available measures of criminal offenses were

Table 1

Percentage of Psychopaths and Nonpsychopaths in Criminal Offense Categories

Offense Category	Psychopaths	Nonpsychopaths	Chi-square
Property	80% (N=40)	22% (N=11)	31.37 *
Fraud	18% (N=9)	0% (N=0)	9.89 *
Drugs	10% (N=5)	0% (N=0)	3.36
Sex	18% (N=9)	68% (N=34)	23.50 *
Violence	14% (N=7)	58% (N=29)	19.14 *
Miscellaneous	60% (N=30)	28% (N=14)	9.13 *

* denotes chi-square significant at $p < .01$.

crude, and the percentages recorded are likely underestimates. As well, the greater number of violent offenses for nonpsychopaths is the result of many sexual offenses being coded violent. The percentages of each group committing offenses in each category are given in Table 1.

In sum, there were no differences between simulation and honest groups on any of the demographic variables. In general, however, it appears that nonpsychopaths in this sample were older and more likely to commit "serious" offenses than psychopaths.

Finally, psychopathy was significantly correlated with APD diagnosis. PCL-SV score correlated .66 and .70, respectively with APD diagnosis (yes vs. no) and total APD symptoms. Similarly, psychopathy group correlated .73 and .74 with the same variables. Part 1 of the PCL-SV correlated .52 with APD diagnosis and .55 with total APD symptoms. Part 2 correlated .70 and .74 respectively. Thus, the behavioral features of psychopathy were more related to antisocial personality than were the affective/interpersonal features. This pattern of results is logical given the behavioral focus of the APD criteria. In sum, the substantial overlap of diagnoses added validity to the psychopathy ratings.

Main Effect of Simulation/Honest Conditions

A multivariate analysis of variance, covarying age (MANCOVA), was conducted using simulation groups (simulation

vs. honest) and psychopathy groups as independent variables. Dependent measures were the 8 SIRS scales proven most effective in past research in discriminating between malingerers/simulators and honest respondents (Rogers, Bagby, & Dickens, in press). All main and interaction effects were measured using a multivariate generalization of the *t* test, Hotelling's T^2, and the resulting transformed *F* statistic. A summary of this analysis is included in Table 2. The results indicated a highly significant statistical difference on the SIRS scales between the simulation and honest conditions, F (8, 88) = 23.50, $p < .001$. Thus, the simulation group scored higher on a composite of the 8 SIRS scales. Inspection of individual scales showed significant differences in the predicted direction -- that is, simulators reported more symptoms -- on all 8 scales. The SIRS scales, therefore, appear to be highly sensitive to the manipulation of malingering instructions. The mean scale scores and the univariate *F* statistics for the simulation group main effects are presented in Table 3.

An identical analysis was conducted using the three scales of the M Test as dependent measures (see Table 4). The overall statistical difference between simulation and honest conditions was again highly significant, F (3, 94) = 79.06, $p < .001$. The individual scales once again discriminated between groups in the predicted direction. Thus, the M Test scales also appeared to sensitively detect

Table 2

Summary of Overall MANCOVA on Best 8 SIRS Scales

Source of Variation	Hotellings Value	F	Degrees of Freedom	Significance of F
Simulation Condition	2.14	23.50	8, 88	.001
Psychopathy Group	.02	.27	8, 88	.974
Interaction (Simulation x Psychopathy)	.10	1.06	8, 88	.399
Age (Covariate)	.09	.97	8, 88	.465

Table 3

Mean SIRS and M Test Scores for Honest and Simulation Conditions

Scales	Honest	Simulators	F
RS	.78	7.40	115.81 **
SC	1.38	6.36	78.11 **
SEV	3.04	12.40	92.59 **
BL	2.42	14.10	145.04 **
SU	6.86	15.68	49.25 **
SEL	5.90	17.58	131.10 **
RO	1.50	5.00	72.50 **
IA	.42	4.14	44.12 **
MTESTC	.78	5.38	57.64 **
MTESTM	.54	6.06	81.76 **
MTESTS	2.24	7.38	175.27 **

** Significant at $p < .001$

the experimental manipulation. The mean scale scores and the individual F statistics for simulation group effects are included in Table 3.

In both of the above analyses, the effects for psychopathy group, simulation group by psychopathy group interaction, and age (covariate), were insignificant (see Tables 2 and 4). However, hypotheses about the simple main effects of psychopathy group were made prior to the experiment. Most of the following analyses were made to evaluate these hypotheses.

Comparison of Psychopathy Groups in Simulation Condition

It was hypothesized that psychopaths would be more effective simulators than nonpsychopaths. Thus, a MANCOVA with age as a covariate was computed on the simulators only. Of interest was the simple main effect for psychopathy group. The result was insignificant. Thus, there was no overall difference between psychopathy groups on the SIRS scales. Individual scale differences were therefore disregarded. It should be noted that age did not contribute significantly to the prediction of scale scores. A summary of this MANCOVA is contained in Table 5.

An analysis of variance, covarying age, was also conducted using total SIRS score as the dependent variable. This was done to see if psychopathy group had an effect on the overall tendency to report symptoms. The resulting F statistic was computed using the error term from the overall

Table 4

Summary of Overall MANCOVA on M Test Scales

Source of Variation	Hotellings Value	F	Degrees of Freedom	Significance of F
Simulation Condition	2.52	79.06	3, 94	.001
Psychopathy Group	.01	.29	3, 94	.829
Interaction (Simulation x Psychopathy)	.01	.25	3, 94	.862
Age (Covariate)	.11	1.70	3, 94	.180

Table 5

Summary of MANCOVA on Best 8 SIRS Scales: Simulation Group

Source of Variation	Hotellings Value	F	Degrees of Freedom	Significance of F
Psychopathy Group	.13	.65	8, 40	.732
Age (Covariate)	.21	1.03	8, 40	.430

two-way analysis. This error term has been recommended as a more stable estimate of the population error variance (Keppel, 1982). Neither the effect for psychopathy group nor age were significant. A summary of this analysis is outlined in Table 6.

A MANCOVA comparing psychopathy groups on the three M Test scales was also insignificant. Again, therefore, no overall difference existed between psychopathy groups. The contribution of age was insignificant. In sum, there was no evidence of a difference in malingering ability between psychopaths and nonpsychopaths on any of the dependent measures. There was also no effect for age as a covariate (see Table 7 for summary).

Isolation of "Good" and "Poor" Malingerers. The previous analyses addressed the question of whether or psychopaths were more effective at feigning illness than nonpsychopaths. The second major question of this study turned this issue around -- i.e., Are effective malingerers more psychopathic than ineffective malingerers? To address this question two groups of subjects were isolated. The first group (N = 17) consisted of the "best" simulators. The criterion for inclusion in this group was that the subject "fool" (i.e., appear truthful) at least 2 of the 8 SIRS scales. The category cutoff scores used are provided in the SIRS manual (Rogers et al., 1991, in press). The second group (N=16) consisted of the "poorest" simulators.

Table 6

Summary of ANCOVA on total SIRS score: Simulation Group

Source of Variation	SS	DF	MS	F	Significance of F
Psychopathy Group	37.45	1	37.45	.03	>.70
Age (Covariate)	631.75	1	631.75	.56	>.40
Within Cells	106588.54	95	1121.98		

Table 7

Summary of MANCOVA on M Test Scales: Simulation Group

Source of Variation	Hotellings Value	F	Degrees of Freedom	Significance of F
Psychopathy Group	.05	.70	3, 45	.557
Age (Covariate)	.11	1.70	3, 45	.180

These subjects were detected as simulators by at least 2 scales (cutoffs reported in Rogers et al., 1991). There was no overlap between these two groups.

Preliminary t test analyses indicated no differences between the good and bad simulators in age or education. The mean group ages were 28.82 (SD = 6.43) and 31.29 (SD = 4.82) respectively for the good and bad groups. Mean years of education for the same groups were 10.3 (SD = 1.9) and 9.7 (SD = 1.9). There were also no differences between groups in total PCL score or in total score on Factor 2 of the PCL. However, there was some difference between groups on Factor 1 of the PCL. Here there was a tendency for "good" simulators (M = 6.94, SD = 3.23) to have a somewhat more psychopathic personality than "poor" simulators (M = 5.06, SD = 2.78), F (1,32) = 3.40, p. < .07.

Next, to directly test the hypothesis, a chi-square analysis was computed contrasting the proportion of psychopaths and nonpsychopaths in the good and bad groups. The result approached significance, X^2 (1, N = 33) = 3.64, p < .06., with a greater proportion of psychopaths in the "good" simulation group. Conversely, a greater proportion on nonpsychopaths were in the "poor" group. It should be noted, however, that this weak effect should be interpreted with caution, especially since only extreme psychopathy groups were included in this study (i.e., subjects with "mid-range" psychopathy scores were excluded). The number

and percentages of individuals in each cell of the contingency table are given in Table 8.

An identical procedure was used to evaluate the number of "good" and "poor" simulators meeting DSM-III criteria for antisocial personality disorder. The result was significant, X^2 (1, $\underline{N}$ = 33) = 4.64, $\underline{p}$. < .03. Thus, the effect observed with psychopathy groups appeared to be somewhat stronger when individuals are grouped according to APD diagnosis. That is, a large number of the effective simulators had received APD diagnosis. However, the same qualifications made in the previous paragraph apply to this analysis. Table 8 includes the number of individuals in the simulator groups with an APD diagnosis.

Analysis of Honest Responders

It was hypothesized that psychopaths in the honest condition would report more symptoms than nonpsychopaths on both the SIRS and M Test scales. Thus, planned comparison of psychopathy groups were conducted isolating honest responders. First, the simple main effect for psychopathy group (covarying age) was computed using the best 8 SIRS scales described above. The effect for both age and psychopathy group were insignificant. The same result was seen for a MANCOVA using the M Test scales as dependent measures. The summaries of these analyses are included in Tables 9 and 10, respectively.

Table 8

Percentage of "Good" and "Poor" Simulators in PCL and APD Groups

	PCL		APD	
Success of Simulation	P	NP	Yes	No
Successful	71% (N=12)	29% (N=5)	82% (N=14)	18% (N=3)
Unsuccessful	38% (N=6)	62% (N=10)	44% (N=7)	54% (N=9)

Table 9

Summary of MANCOVA on Best 8 SIRS Scales: Honest Group

Source of Variation	Hotellings Value	F	Degrees of Freedom	Significance of F
Psychopath Group	.24	1.20	8, 40	.321
Age (Covariate)	.13	.67	8, 40	.712

Table 10

Summary of MANCOVA on M Test Scales: Honest group

Source of Variation	Hotellings Value	F	Degrees of Freedom	Significance of F
Psychopathy Group	.03	.41	3, 45	.744
Age (Covariate)	.02	.23	3, 45	.874

Despite the insignificant overall effect, it was observed that mean scores were higher for psychopaths than non-psychopaths on all of the SIRS scales measuring malingering. This tendency is illustrated by the mean scale scores listed in Table 11. To look at this tendency closer, the total SIRS score was computed as a way of measuring symptom reporting (see Measures). This measure has been used for this purpose in previous research, as it is not a measure of malingering per se. (Rogers et al., 1989). This index simply totals the number of symptoms positively endorsed on the 12 SIRS scales measuring malingering. The mean total SIRS scores for psychopathy groups in the honest condition are included in Table 11.

The ANCOVA using total SIRS score as the dependent measure was insignificant both for psychopathy group and age (see Table 12). However, since both effects approached significance, and there was a high correlation between psychopathy group and age in the honest sample -- $r = .345$, $p < .007$ (psychopaths were younger) -- a regression approach was adopted to determine which variable accounted for the most variance. Pearson r coefficients for total SIRS score with psychopathy group and age were .30 and -.34 respectively, indicating that psychopaths and younger individuals were more prone to reporting symptoms. Thus, the variance accounted for by the age alone was

Table 11

Mean SIRS Scale Scores for Psychopaths and Non-psychopaths: Honest Condition

Scales	Psychopaths	Non-Psychopaths	F
RS	1.00	.56	.95
IA	.58	.36	.25
SC	2.04	.72	6.70 *
OS	.84	.24	3.86 *
SO	1.44	.92	1.56
BL	3.04	1.80	1.45
SU	8.76	4.96	4.89 *
RO	2.00	1.00	4.83 *
SEV	4.24	1.84	4.26 *
SEL	7.12	4.68	3.06
TINC	2.20	1.60	1.21
Total SIRS	46.88	28.16	4.68 *

* Denotes significance at $p. < .05$

Table 12

Summary of ANCOVA on Total SIRS Score: Honest Group

Source of Variation	SS	DF	MS	F	Significance of F
Psychopathy Group	3798.31	1	3798.31	3.38	<.08
Age (Covariate)	4029.69	1	4029.69	3.59	<.07
Within Cells	106588.54	95	1121.98		

approximately 12%; psychopathy group accounted for 9% of the variance.

A backward regression analysis was conducted to help determine the relative contribution of each variable to total SIRS score. Both variables were left in the equation (probability of F-to-remove was fixed at .10), and the multiple R of .38 was significant, F (2,47) = 4.00, p. < .04. The R Square of .145 indicated that the combination of age and psychopathy group accounted for approximately 15% of the variance. Thus, psychopathy group could add only 3% to the 12% accounted for by age. Conversely, age improved upon psychopathy group by 6%. Thus, age was a marginally better predictor. The partial correlations for psychopathy group and age with total SIRS score were .21 and -.29 respectively. Again, age appeared to have a slightly stronger relationship with the tendency to report symptoms. It should be noted, however, that the all of these effects are weak, and a substantial amount of variance remains unexplained.

As psychopathy seemed to be somewhat predictive of symptom reporting, a regression analysis was conducted to see if "Part 1" and "Part 2" of the PCL-SV had differential predictive power. Individual Pearson r correlations between Part 1 and 2 with total SIRS scores were .14 and .27 respectively. Partial correlations for the same relationships were -.07 and .24. Finally, a regression

analysis utilizing backward removal of variables left only Part 2 in the equation, $F(1,48) = 3.68$, $p < .06$. The R^2 with both factors included was .075 and could not improve upon the variance accounted for by Part 2 alone ($R^2 = .07$). Thus, it appeared the virtually all of the explained variance deriving from psychopathy came from Part 2; in other words, it is antisocial behavior rather than the affective/interpersonal dimension that is related to symptom reporting. Again, however, the relative variance accounted for by psychopathy score is small.

Isolation of "suspected exaggeration" and "healthy/denial" groups. As with the simulation condition, high and low scorers on the SIRS were isolated to determine any differences in proportions of psychopaths. This analysis was done on a post-hoc basis. First, those subjects in the honest group that exceeded suggested SIRS cutoffs for suspected malingering on at least 1 scale were isolated. This procedure selected individuals who were suspected "exaggerators." Only 8 subjects met the criterion. However, of those eight individuals, 6 were in the psychopathic group and 2 were nonpsychopathic. In order to make sense of this result, a second group of subjects were isolated according to the criterion that none of the SIRS scales exceeded cutoffs for suspected malingering. Thus, individuals in this group ($N=22$) were conceived as being either "healthy" or "denying" their difficulties. Of

the 22 subjects meeting this criterion, 8 were psychopathic and 14 were nonpsychopathic. A chi-square analysis conducted on the proportion of psychopaths in the "suspected exaggeration" and "healthy/denial" groups respectively. The result approached statistical significance, $X^2(1, N = 30) = 3.52$, $p < .06$. The contingency table used for this chi-square is given in Table 13. There appeared to be a weak tendency for suspected exaggerators to be psychopathic, and healthy individuals, or those denying difficulties to be nonpsychopathic. It should be noted that t tests using Bonferroni-corrected significance levels indicated there were no differences between these groups in total PCL score, age, or education.

An identical procedure was used to calculate the number of individuals diagnosed with antisocial personality disorder in the "suspected exaggeration" and "healthy/denial" groups. The number receiving APD diagnoses in the both groups was 6. The number without diagnoses were 2 and 16. Thus, the same pattern emerged with antisocial individuals more likely to be in the exaggeration group. The contingency table for this analysis is given in Table 13. The chi-square on the distribution was significant, X^2 $(1, N=30) = 5.57$, $p. < .02$.

Defensiveness. Analysis of the Defensiveness scale (DS) was conducted to determine if the effect for psychopathy group and symptom reporting was related to

Table 13

Percentage of "Healthy/Denial" and "Exaggerators" in PCL and APD Groups: Honest Condition

	PCL		APD	
Group	P	NP	Yes	No
Healthy/Denial	36% (N=8)	64% (N=14)	27% (N=6)	73% (N=16)
Exaggerators	75% (N=6)	25% (N=2)	75% (N=6)	25% (N=2)

defensive responding. An ANCOVA was conducted on the honest group using the error term from the overall two-way analysis. The result showed a significant effect for psychopathy group: Psychopaths mean DS score was 27.84 (SD = 5.31) whereas non-psychopaths average score was 23.12 (SD = 8.54), $F(1,95)=5.13$, $p < .03$. In this case a low score represents defensiveness. Age was not significant as a covariate, $F(1,95) = 3.02$, $p < .09$. Thus, it appeared that psychopaths were, in general, less defensive in the honest condition (see Table 14 for summary). This result may be a function of the type of offense common to each group, and will be addressed in the discussion section of this paper.

Similarly, there was a tendency for those in the "healthy/denial" group to score high on the defensiveness scale, $F(1,28) = 5.00$, $p < .03$ Thus, the low scoring group may be most accurately characterized as a denial group rather than a well-adjusted cohort.

Direct Appraisal questions. As an alternative way to look at the tendency of psychopathy groups to malinger, an analysis of covariance (ANCOVA) was conducted on the Direct Appraisal scale. These questions directly ask about malingering, exaggeration and manipulation of mental health professionals and were not included in previous analyses. The questions are similar to those reported by Sierles (1984). Because of the hypothesis that psychopaths would be more likely to malinger (or exaggerate) a planned comparison

Table 14

Summary of ANCOVA on Defensiveness Score: Honest Group

Source of Variation	SS	DF	MS	F	Significance of F
Psychopathy Group	278.48	1	278.48	5.13	<.03
Age (Covariate)	163.56	1	163.56	3.02	<.09
Within Cells	5150.37	95	54.21		

in the honest condition, covarying age, was computed using the error term from the overall 2-way ANCOVA (which included malingering group as a factor). The result was significant, F (1,95) = 4.95, $p < .03$, with psychopaths being more likely to admit to past and present malingering behavior. Mean scores on this scale were 2.64 (SD = 3.51) and .92 (SD = .95) for psychopaths and nonpsychopaths respectively. The effect of age as a covariate was insignificant (see Table 15).

The percentages of psychopathy groups endorsing individual Direct Appraisal questions are included in Table 16. Of note are the 24% of psychopaths (N = 6) who responded positively to the question, "Do you sometimes like to fool or mislead doctors?" No nonpsychopaths endorsed this question. Similarly, four psychopaths directly admitted to currently exaggerating some of their psychological problems; again there were no nonpsychopaths so inclined.

Table 15

Summary of ANCOVA on Direct Appraisal Score: Honest Group

Source of Variation	SS	DF	MS	F	Significance of F
Psychopathy Group	41.55	1	41.55	4.95	<.03
Age (Covariate)	4.57	1	4.57	.54	<.50
Within Cells	796.48	95	8.38		

Table 16

Percentage of Honest Groups Responding Positively to Direct Appraisal Questions

Question	Psychopaths	Nonpsychopaths
1. Do you sometimes like to keep doctors guessing about what is really going with you?	32% (N=8)	12% (N=3)
2. Do you sometimes make your symptoms seem worse than they actually are?	24% (N=6)	32% (N=8)
3. Have you ever made up psychological problems that did not really exist?	12% (N=3)	0% (N=0)
4. Do you not have a strong sense of what is morally right and wrong?	20% (N=5)	8% (N=2)
5. Do you sometimes like to fool or mislead doctors?	24% (N=6)	0% (N=0)
6. Have you been exaggerating some of your psychological problems?	16% (N=4)	0% (N=0)

DISCUSSION

The results of this study do not support the theoretical relationship between psychopathy and malingering. This section includes a discussion of the three major hypotheses addressing: (a) the ability of psychopaths to malinger, (b) the possibility that effective malingerers are more psychopathic, and (c) the tendency of psychopaths to malinger.

The Ability of Psychopaths to Malinger

The first hypothesis of this study was that psychopaths would be more effective at simulating mental illness than nonpsychopaths. The results indicated that psychopaths, as a group, were no better at this task than nonpsychopaths; multiple analyses of covariance on both the SIRS and M Test scales were insignificant. In fact, very few individuals were successful at "fooling" the SIRS interview, and the best conceptualization of the result is that the psychopathic and nonpsychopathic groups were equally poor simulators. In this case, the null hypothesis could not be rejected.

This result is generally inconsistent with the clinical and theoretical literature suggesting psychopaths might be particularly adept at this type of deception. However, a number of points should be kept in mind when interpreting the findings. First, a common criticism of research utilizing simulation conditions is that it lacks ecological

validity. This criticism applies to this study, as there may have been inadequate incentive for subjects to perform to the best of their ability. It is possible that with more stressful "real life" conditions, the psychopathic "advantage" might emerge. A threshold model can be hypothesized in which psychopaths are no more effective at malingering in low threat situations, but if the stakes are high (e.g., life imprisonment vs. exculpation) the psychopath can utilize the mechanisms discussed -- i.e., lying ability, low anxiety, lack of remorse -- to his advantage. For example, low anticipatory anxiety is of little relevance if there is nothing to be anxious about. Such a model remains untested, and future research should explore its validity. One suggestion would be to compare groups of psychopaths (and nonpsychopaths) under low and high incentive conditions.

Another limitation of the design of this study was that subjects were not given much time to prepare their simulation strategies. Although each volunteer was told well ahead of time that he had a 50% chance of being asked to feign mental illness, he was not finally informed until 10 minutes before the interview. It is unlikely, therefore, that many subjects invested substantial preparation time. Again with respect to ecological validity, this situation likely does not resemble circumstances surrounding bona fide malingering. A case in point is the effort expended by

Kenneth Bianchi to carefully fabricate a second personality for his defense. Future research could address this factor by providing a longer preparation time (e.g., one week) and written descriptions of various psychiatric conditions to simulators.

The lack of incentive and insufficient preparation time likely contributed to the generally poor performance by all subjects on the malingering measures. Indeed, the approaches used by virtually all participants appeared to the interviewers to be unsophisticated and naive. This impression was confirmed by the residents' answers to post-test questions regarding simulation strategies. Some of the more common techniques included: (a) answering all questions in the opposite direction to the truth, (b) offering ridiculous answers to straight-forward questions, (c) constantly playing with a pen, pencil or paper, (d) trying to talk as little as possible, (e) ignoring certain enquiries, and (f) contradicting oneself often. It is noteworthy, however, that approximately 90% of those asked to simulate mental illness believed that they did a good job at fooling the structured interview. Thus, there appeared to be a large discrepancy between perceived and actual performance in both psychopathic and nonpsychopathic groups; subjects greatly overestimated their ability to convincingly feign psychopathology. This overconfidence suggests that

even if more preparation time were made available, it might be viewed as unnecessary and not be utilized.

Another explanation for the absence of group differences (and the overall poor performance) is that the very best malingerers and/or exaggerators may not have volunteered for the study. The nature of the institution used in this study makes it probable that a number of residents were at least exaggerating their illness. The setting is "state of the art" in terms of comfort, and as such is a desirable place to serve a sentence. It is also "treatment" oriented, and residents must therefore have a treatable condition. It is very possible that those who were currently misrepresenting their condition would be suspicious, and would not volunteer for a study investigating such behavior. Thus, if psychopaths were overrepresented in this group of "true" malingerers, it may be that the very individuals addressed in the literature and targeted for this study did not take part.

A related point is that the most manipulative psychopaths were possibly not even in the institution. In other words, those currently serving a sentence may be less adept at deceptive behavior than those that have avoided arrest in the first place. It would be difficult, for practical reasons, to test the malingering abilility of non-institutionalized psychopaths. Nonetheless, it is important

to note this limitation in the generalizability of this study.

Post-test interviews revealed that most individuals in the simulation condition chose to feign a psychotic or "paranoid" condition (subjects were asked, "What illness were you pretending to have?"). Hence, the total sample was reasonably homogeneous with respect to the nature of the simulated disorder. As a result, it might be the case that the absence of group differences applies to psychotic disorders only, and if other instructions were offered -- e.g., to feign dissociative disorders or major depressive illness -- psychopaths might prove to be more effective. This issue has yet to be addressed in the empirical literature.

As noted in the introduction to this study, Meloy (1988) has suggested that whereas psychopaths may not be more effective simulators in general, they may be particularly adept at drawing upon personal experience with mental illness to malinger when necessary. For example, if a co-occuring psychotic disorder or multiple personality exists (or has existed in the past) the psychopath might have a greater ability to feign these disorders. Information regarding psychiatric history was not available for the participants in this study, but a recommended direction for future efforts is to contrast malingering

ability in psychopaths with and without history of major mental illness.

If Meloy's theory is extended, it could be hypothesized that psychopaths might also make more effective use of experience with the mental health system in general. More specifically, they may be able to imitate friends or acquaintances who are mentally ill. Indeed, this was a commonly reported strategy of the simulators in this study. Again, however, such experience was not recorded systematically in this investigation. It was nonetheless noted that the psychopathic group was somewhat younger than the nonpsychopathic group. Hence, it might be that the nonpsychopaths had more experience with the mental health system. It might follow that the relatively few psychopaths with knowledge of mental illness may have contributed to this study's result. It should be noted that age and education did not correlate with the dependent measures in the simulation condition (i.e., they were not related to simulation ability), but these are only crude measures of experience. Furthermore, the limited range of these variables in the psychopathic group make interpretation difficult.

It should be recalled that the hypothesis that psychopaths would be more able simulators was followed with a caveat that experiments using psychophysiological (polygraph) techniques have not found differences between

psychopaths and nonpsychopaths in deception ability (Patrick & Iacono, 1989; Raskin & Hare, 1978). Thus, while conceding the limitations of this study described above, the combination of the current result with the polygraph literature begins to challenge some of the common clinical and theoretical assumptions about psychopaths' deception ability. Interestingly, the explanations that have been offered for psychopaths' general inability to "fool" the polygraph are also relevant to this study. They include: (a) the fact that such a situation is too restrictive and structured and does not allow the psychopath to utilize his deceptive skills optimally, (b) the lack of perceived control in a restrictive situation, (c) the lack of training for manipulating a specific task (Patrick & Iacono, 1989). The general theme of these explanations is that although psychopaths may have a need and ability to deceive, the circumstances of a controlled testing situation does not necessarily allow for their expression. For example, if a unique use of language exists, this factor is neutralized by a forced response (yes/no) format. This point may have implications for advocating a structured approach to the assessment of malingering; such a technique allows less room for a skilled con to manipulate.

In sum, there is currently little support for the contention that group differences between psychopaths and nonpsychopaths to simulate mental illness. Limitations of

this study have been described, and suggestions for future research provided. For the time being, it is not possible to reject the null hypothesis. Thus, it would appear that either psychopaths don't possess the abilities attributed to them, or that the skills are insufficient or irrelevant with respect to the experimental setting used in this study.

Malingerers Who are Psychopathic.

It was predicted that the most effective simulators in this study would more likely be psychopathic than nonpsychopathic. While this hypothesis is similar to the first, it was designed to account for the fact that the psychopathic and nonpsychopathic groups were not homogeneous; that is, a group comparison could obscure the possibility that there exists a subgroup of psychopaths who are adept at malingering. Hence, when the hypothesis was investigated by isolating groups of "good" and "poor" simulators, there was a slight tendency for the effective malingerers to have higher scores on the PCL-SV. As well, there was a tendency for a greater percentage of the "good" group to be psychopathic and the "poor" group to be nonpsychopathic. A similar pattern was seen with respect to proportions of these groups diagnosed with antisocial personality disorder. Furthermore, there were no differences between the "good" and "poor" groups in age or education.

This effect should be interpreted with reservation given the nonsignificant alpha levels, and the absence of a group of subjects with moderate psychopathy ratings (recall that only subjects with extreme PCL-SV scores were included). The presence of this "middle" group of offenders would make the picture more complete; that is, it is not known in which group individuals with moderate psychopathy ratings would fall. Nonetheless, the result is consistent with that reported by Searles (1984), and raises the possibility that although psychopaths as a group are not more effective simulators, it may be that many of the very best malingerers are psychopathic.

An interesting finding was that it was the affective/interpersonal aspects of psychopathic personality (Part 1 of the PCL-SV), not the behavior features, that appeared to account for the above effect (Part 2 of the PCL-SV, which measures antisocial behavior, was unrelated to "good" and "poor" group membership). This is consistent with the predictions made in the literature about the relationship between malingering ability and traits such as manipulativeness and lack of empathy. This observation suggests that it might be important to focus on more than the behavior patterns of psychopaths when attempting to predict malingering ability. While this point may appear obvious, it is relevant given the current association drawn between antisocial personality disorder and malingering in

the DSM-III-R. As noted earlier, the APD criteria are very behaviorally focussed, and do not address emotional and interpersonal processes. As such, they have little predictive value. Moreover, it was also noted that the personality construct of psychopathy appears to predict behaviors such as recidivism more accurately than antisocial behavior alone (e.g., Hart, et al., 1988). The current finding, albeit limited, allows for the speculation that this may also be the case in predicting malingering ability. It is suggested that further research address the relative predictive power of various aspects of psychopathy -- particularly, behavioral versus other factors. It is likely that a regression approach, which includes subjects with mid-range psychopathy scores would be most useful in this regard.

In sum, a tentative qualification can be made regarding the absence of group differences in malingering ability. While it is unlikely that psychopaths as a group are better malingerers, future research should address the relationship of particular psychopathic personality traits to malingering ability.

The Tendency of Psychopaths to Exaggerate Illness

It was hypothesized that psychopaths would report more symptoms than nonpsychopaths when given instructions to report honestly about psychological issues. There was no

difference between groups on the overall MANCOVA. Thus, it was again not possible to reject the null hypothesis.

There were tendencies, however, for both age and psychopathy group to be related to symptom reporting. Younger subjects and psychopaths had a tendency to report more improbable symptoms on the SIRS and M Test. As well, there were disproportionate numbers of psychopaths in the "malingering" and "healthy/denial" conditions (however, note the qualification made above about the absence of a "middle" psychopathy group). It is acknowledged that little can be concluded from such small effects (i.e., the percentage of variance accounted for on the SIRS is negligible). Furthermore, while the average totals on the SIRS scales tended to be higher for the psychopathic group, they were still not clinically significant; that is, the protocols would not generally warrant suspicion of malingering in a psychological assessment.

Despite the small magnitude of the effect, it is worth noting that the same "sub-clinical" tendency for psychopaths to claim symptoms was reported by Hare et al. (1989). Taken together, these results are intriguing, and raise the possibility that if the incentive to malinger were higher, the effect might be greater. Like the simulation condition, a limitation of the honest condition in the current study was that there was little reason (perhaps none) for individuals to exaggerate or fake symptoms. However, it is

this apparent absence of obvious incentive to report symptoms that make the observed tendency rather puzzling. If the finding is replicated in other experiments, the reasons for it may become clearer. Presently several speculations can be offered.

First, it is important to note the effect of age in these analyses; it was found that age actually accounted for more variance than psychopathy. It should be added that age had a small, but significant, relationship to malingering behavior (younger individuals were more likely to malinger) in the Sierles (1984) study. It might be, therefore, that the tendency to report symptoms reflects a cavalier attitude amongst young, antisocial individuals, and has little to do with psychopathy itself. In support of this possibility is the finding that virtually all of the variance accounted for by psychopathy was related to antisocial <u>behavior</u>, not personality. Note that this is the opposite pattern to the relationship found between psychopathy and simulation ability. Thus, it may be that the core construct of psychopathic personality is related only to malingering ability, whereas malingering tendency is simply one of many delinquent behaviors exhibited by younger criminals.

Another plausible explanation for the small effect relates to the difference between groups in criminal history. It was found that 68% of the nonpsychopathic group had committed sex offenses, contrasted to only 18% of the

psychopathic group. It is not surprising to find this number of sex offenders in a treatment oriented institution, and these individuals fell into the nonpsychopathic group in part because of their short criminal histories (i.e., there were many first time sex offenders). The point here is that this group difference introduces a moderator variable -- defensiveness -- that may account for the symptom reporting differences. Specifically, it was found that nonpsychopaths had a significantly lower defensiveness score than psychopaths. This finding is consistent with literature indicating that defensiveness regarding psychopathology is a common phenomenon with sex offenders (Langevin, 1988). Therefore, defensiveness on behalf of the nonpsychopaths could account for group differences on the SIRS, and the disproportionate group membership in the "malingering" and "healthy/denial" groups. Future research should attempt to balance criminal "types" within psychopathy groups to control for this variable.

A further possibility is that the weak relationship between psychopathy and symptom reporting is a reflection of histrionic (hysterical), or attention-seeking tendencies. For example, some literature indicates an empirical relationship between psychopathy and the somatoform disorders (as referred to by DSM-III-R), such as conversion disorder and somatization disorder (Cloninger & Guze, 1970; Lilienfeld, Van Valkenburg, Larntz, & Akiskal, 1986; Meloy,

1988). Similarly, histrionic personality disorder has also correlated with antisocial behavior (Lilienfeld, et al., 1986; Hare et al., in press). Most relevant to this study, Hare et al. (in press) found that the PCL-SV correlated .68 with histrionic personality disorder traits as measured by the Personality Disorder Examination (PDE: Loranger, 1988). This relationship may help explain why psychopaths not only over-report symptoms, but also more often report improbable, absurd, and inconsistent symptoms. With respect to this point, it is important to reiterate that it is unlikely that psychopaths legitimately experience more bona fide symptoms (cf., Hare & Jutai, 1986), and that the measures used in this study (i.e., SIRS and M Test) do not measure genuine psychopathology.

Finally, it was found that psychopaths were more likely to admit to past and current malingering behavior than nonpsychopaths. This effect was again consistent with the Sierles (1984) study. While this result may also be due to the histrionic and defensiveness factors mentioned above, it more likely reflects an entirely different process: regardless of whether or not they malinger mental illness more often, it is conceivable that psychopathic individuals take more <u>pride</u> in the malingering behavior that has occurred. The introduction to this study described a number of models of deception in psychopaths, many centering around a profound need to control -- even conquer -- others. To

the psychopath, therefore, the successful deception of another may be a victory worth celebrating. As mentioned above, Bursten (1973) and Meloy (1988) have described a manipulative cycle in the psychopath whereby deception enhances narcissism and protects his or her sense of self. The result of successful deceit is "contemptuous delight". Similarly, Ekman (1985) referred to the successful liar's positive feelings as "duping delight." Ekman has commented that criminals may actually confess their deception in order to share their delight in the manipulation. Cleckley (1982) also noticed this apparent contradictory behavior:

> Although he will lie about any matter, under any circumstances, and often for no good reason, he may, on the contrary, sometimes own up to his errors and appear to be facing the consequences with singular honesty, fortitude, and manliness. (p. 342)

It can be argued that this process is particularly common in psychopathic criminals because of their narcissistic need to be acknowledged as successful cons. Moreover, there are few accomplishments that would bring more pride than the successful deception of a highly educated psychiatrist or psychologist. Finally, in this study, there was likely little perceived threat in the interview situation, providing a safe venue for describing malingering exploits. In sum, the implication of this finding is that even if psychopaths are initially successful

at malingering, they might later be detected as a function of their "duping delight."

General Comments

A potential criticism of this study is that it relied upon a relatively new scale, the SIRS, to measure malingering. It was noted earlier that further validation of the scale is necessary. With respect to this concern, the present study served as a cross-validation of the SIRS on another correctional sample. The results were encouraging. For example, there were clear differences between the simulation and honest conditions SIRS. This result is of limited interest to the main hypotheses of this study, but demonstrates that the measures were sensitive to the experimental manipulation of conditions. The result provides further validity to the SIRS, for it appears to be measuring what it is intended to measure. As well, the magnitude of the differences between honest and simulation conditions are consistent with SIRS validation research (Rogers et al., 1991). Moreover, when cutoff scores from the SIRS manual were applied to the overall sample in this study, very similar numbers of individuals were classified into malingering and honest groups. Finally, it was found that very few individuals, including psychopaths, could "fool" the SIRS in the simulation condition. In these ways, this study has added positively to the SIRS validation literature.

Although a number of suggestions for future research have been made above, a few final comments on this topic will be made here. First, an issue that should be formally addressed is the relationship between intelligence and malingering. While there is no reason to believe that the psychopathy groups differed in intelligence in this study (cf., Hare, 1970, 1991), this variable was not explicitly measured. Education was unrelated to malingering ability and tendency, but this factor does not necessarily bear any relationship to intellectual sophistication. Future endeavors should address the interaction between intelligence and psychopathy; as noted above, it is conceivable that psychopathy alone does not account for skilled malingering. However, the combination of certain psychopathic personality traits and high intelligence might be predictive of malingering ability.

Second, it has been noted that many of the shortcomings of this research are related to ecological validity. A suggestion to correct for this would be to isolate individuals at a critical "stage" -- e.g., pretrial phase -- of criminal justice processing to increase incentive to report symptoms. For example, it would be interesting to contrast pre- and post-trial symptom reporting styles to compare the malingering tendencies of psychopaths and nonpsychopaths. Another approach might be to use institutional files to derive ratings of psychopathy on

diagnosed malingerers (or suspected malingerers). In this way, the proportion of malingerers who are psychopathic could be illustrated. Both of these designs would be focussed upon actual, not simulated, malingering behavior.

Finally, a brief comment regarding the ethics of malingering research is necessary. It could be argued that inmates taking part in research involving the simulation of mental illness are being given the opportunity to "practice" such manipulation. In the current study, an effort was made to avoid this result by not giving explicit feedback to participants regarding the quality of their performance. Thus, it is hoped that volunteers left the experiment "none the wiser" about how to effectively malinger mental illness.

Summary

This study suggests that psychopaths are neither more adept at nor inclined to simulate mental illness than nonpsychopaths. In fact, the psychopaths in this study tended to be quite naive about such behavior, and were unrealistically confident about their malingering ability. In most cases, these individuals rarely came close to giving a convincing presentation. Indeed, it is somewhat reassuring to know that not all psychopathic individuals have the sophistication of a Kenneth Bianchi.

In fact, this study provides several clues about how the psychopath might be vulnerable to the detection of malingering. First, the primary conclusion of this study is

that psychopathic individuals are not particularly adept at malingering. Thus, a structured format to assessment might reveal inconsistencies in reporting, implausible symptoms, and so forth. Second, psychopathic individuals, like all subjects in this study, were generally overconfident about their ability; many of the subjects in this study mistakenly thought that simulating illness was a simple process. They therefore might not invest sufficient preparation time and effort. Third, as with the polygraphy literature, this study suggests that a structured, restrictive assessment environment might help to neutralize the psychopath's skill at deception (i.e., he or she has less room to manipulate). Finally, the direct appraisal of malingering behavior in this investigation indicates that even if the psychopathy is successful at malingering, later detection might be imminent because of the narcissistic need to tell others.

In conclusion, this study does not support an association between psychopathy and malingering, and until further research can suggest otherwise, it may be necessary to adopt a less pejorative view of malingering behavior. Specifically, the DSM-III-R assumption that individuals with antisocial personality disorder should be suspected of malingering remains unvalidated. Thus, the automatic discounting of complaints made by a psychopath may result in the neglect of a co-occuring disorder. As noted in the introduction, from the perspective of the would-be

malingerer, feigning an illness may simply be an adaptive effort to deal with difficult circumstances; it appears that it is not necessarily related to antisocial or psychopathic personality traits.

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APPENDIX A: CLECKLEY CRITERIA FOR PSYCHOPATHY

1. Superficial charm and good "intelligence"
2. Absence of delusions and other signs of irrational thinking
3. Absence of "nervousness" or psychoneurotic manifestations
4. Unreliability
5. Untruthfulness and insincerity
6. Lack of remorse and shame
7. Inadequately motivated antisocial behavior
8. Poor judgment and failure to learn by experience
9. Pathologic egocentricity and incapacity for love
10. General poverty in major affective reactions
11. Specific loss of insight
12. Unresponsiveness in general interpersonal relations
13. Fantastic and uninviting behavior with drink and sometimes without
14. Suicide rarely carried out
15. Sex life impersonal, trivial, and poorly integrated
16. Failure to follow any life plan

APPENDIX B: PSYCHOPATHY CHECKLIST - REVISED

1. Glibness/superficial charm
2. Grandiose sense of self-worth
3. Need for stimulation/proneness to boredom
4. Pathological lying
5. Conning/manipulative
6. Lack of remorse or guilt
7. Shallow affect
8. Callous/lack of empathy
9. Parasitic lifestyle
10. Poor behavioral controls
11. Promiscuous sexual behavior
12. Early behavior problems
13. Lack of realistic, long-term goals
14. Impulsivity
15. Irresponsibility
16. Failure to accept responsibility for actions
17. Many short-term marital relationships
18. Juvenile delinquency
19. Revocation of conditional release
20. Criminal versatility

APPENDIX C: PSYCHOPATHY CHECKLIST - SCREENING VERSION

Subject: _____ | TOTAL SCORE: _____/_____

Date: _____ | Prorated score: _____/ 24

Rater: _____ | Prototypicality: _____ (# of 2's)

PART 1

Item 1: Superficial ..... 0 1 2 omit
- presentation is shallow and difficult to believe
- displays of emotion do not appear genuine
- attempts to portray self in a good light
- tells unlikely stories; has convincing explanations for behavior
- alters statements when challenged with facts or inconsistencies
- uses technical language and jargon, often inappropriately
- conversation and interpersonal behavior are engaging

Item 2: Grandiose ..... 0 1 2 omit
- view of abilities and self-worth is inflated
- self-assured and opinionated
- exaggerates status and reputation
- considers circumstances to be the result of bad luck
- sees self as a victim of the system
- displays little concern for the future

Item 3: Manipulative ..... 0 1 2 omit
- manipulates without concern for the rights of others
- distorts the truth
- deceives with self-assurance and with no apparent anxiety
- a fraud artist or con man
- enjoys deceiving others

Item 4: Lacks Remorse ..... 0 1 2 omit
- appears to have no capacity for guilt; no conscience
- verbalizes remorse in an insincere manner
- displays little emotion in regard to actions
- does not appreciate impact on others
- concerned more with own suffering than with that of others

Item 5: Lacks Empathy ..... 0 1 2 omit
- cold and callous
- indifferent to the feelings or concerns of others
- unable to appreciate the emotional consequences of actions
- expressed emotions are shallow and labile
- verbal and nonverbal expressions of emotion are inconsistent

Item 6: Doesn't Accept Responsibility ..... 0 1 2 omit
- rationalizes; downplays the significance of acts
- minimizes the effects of behavior on others
- projects blame onto others or circumstances
- may maintain innocence or minimize involvement in crimes
- may claim to have been framed or victimized; may claim amnesia or blackouts for events surrounding offenses

PART 2

Item 7: Impulsive ..... 0 1 2 omit
- does things on the "spur of the moment" (including crimes); spends little time considering the consequences of actions
- frequently changes jobs, schools, or relationships
- is a drifter; lives a nomadic lifestyle, with frequent changes of residence
- is easily bored; has difficulty doing things that require sustained attention
- likes to do things that are exciting, risky, and challenging

Item 8: Poor Behavior Controls ..... 0 1 2 omit
- is easily angered or frustrated, especially when drinking
- is often verbally abusive (swears and makes threats)
- is often physically abusive (breaks or throws things; pushes, slaps, or punches people)
- abuse may be sudden and unprovoked
- outbursts are often short-lived

Item 9: Lacks Goals ..... 0 1 2 omit
- does not have realistic long-term plans and commitments
- has lived life "day-to-day," not thinking of the future
- has relied excessively on family, friends, and social assistance for financial support
- has poor academic and employment records
- may describe far-fetched plans or schemes

Item 10: Irresponsible ..... 0 1 2 omit
- behavior frequently causes hardship to others or puts them at risk
- unreliable as a spouse or parent: lacks commitment to relationships, fails to care adequately for children, etc.
- job performance is inadequate: is frequently late, absent, etc.
- untrustworthy with money: has been in trouble for defaulting on loans, not paying bills, not paying child support, etc.

Item 11: Adolescent Antisocial Behavior ..... 0 1 2 omit
- had conduct problems at home and at school as an adolescent
- was in trouble with the law as a youth/minor
- antisocial activities were varied and frequent

Item 12: Adult Antisocial Behavior ..... 0 1 2 omit
- disregards rules and regulations; has had legal problems as an adult
- has been charged with or convicted of criminal offenses
- antisocial activities are varied and frequent

VALIDITY RATING

On the basis of the quality of the interview and collateral information, indicate your confidence in the validity of your PCL:CV rating:

_____/_____/_____/_____/_____

1 2 3 4 5

Low Moderate High

APPENDIX D: STRUCTURED INTERVIEW OF REPORTED SYMPTOMS

You will be asked about many specific psychological problems. These are standard questions about emotional difficulties that may or may not apply to you.

(SS) Selectivity, Subtlety, and Severity

Symptoms should be asked in a run-on sentence, pausing after each for a response.
The definition of "major problem" or "major difficulty" should be the respondent's perception of his/her symptom, not the clinicians'.
For responses which remain equivocal (i.e., "sometimes"), score as X or "no information".
Inquire after each set of four symptoms whether any endorsed item is considered "unbearable". If the respondent does not understand "unbearable" substitute with "too painful to stand" or "too difficult to cope with".

		Endorsed			Unbearable
	Symptom	X	No	Yes	Yes
A1.1	Do you have any major problems with:				
1	... concentration?	X	0	1	2
2	... strange or disturbing thoughts?	X	0	1B	2
3	... waking up early in the morning?	X	0	1	2
4	... hearing voices which aren't really there?	X	0	1B	2
	The problem you mentioned with . . . is it unbearable?				
A1.2	Do you have any major difficulties with:				
1	... others plotting against you?	X	0	1B	2
2	... being irritated with others?	X	0	1	2
3	... losing weight?	X	0	1	2
4	... feeling that you can control world events?	X	0	1B	2
	The difficulty you mentioned with . . . is it unbearable?				
A1.3	Do you have any major problems with:				
1	... being very depressed?	X	0	1B	2
2	... having others control your movements?	X	0	1B	2
3	... sleeping too much?	X	0	1	2
4	... over-reacting to difficult situations?	X	0	1	2
	The problem you mentioned with . . . is it unbearable?				
A1.4	Do you have any major difficulties with:				
1	... pronouncing difficult words?	X	0	1	2
2	... maintaining your interest in activities?	X	0	1	2
3	... keeping your sexual feelings under control?	X	0	1B	2
4	... having unfriendly people following you?	X	0	1B	2
	The difficulty you mentioned with . . . is it unbearable?				

Selectivity	(total number of symptoms)	____
Subtlety	(ratio of blatant [B] to subtle symptoms)	____ to ____
Severity	(number of unbearable symptoms)	____

(DS)	A2.	Do you sometimes wish you were more self-confident?	X No information 0 No 1 Qualified yes/ sometimes 2 Definite yes
(RS) Thought insertion	A3.	Can people put thoughts in your mind against your will? (Distinguish between thought insertion and verbal persuasion, i.e., Is it that they actually put thoughts in your head without speaking to you?)	X No information 0 No 1 Qualified yes/ sometimes 2 Definite yes
(DS)	A4.	Do you occasionally have trouble making important decisions?	X No information 0 No 1 Qualified yes/ sometimes 2 Definite yes
(IA) Bizarre visual distortions	A5.	Do buildings appear to change in shape? Does their shape seem different to you at different times? (Rule out if this is the result of drug use, i.e., Is it only because you were on drugs?)	X No information 0 No 1 Qualified yes/ sometimes 2 Definite yes
(DS)	A6.	Do you sometimes wish for world peace or an end to poverty?	X No information 0 No 1 Qualified yes/ sometimes 2 Definite yes
(SM) Self Management	A7.	When you've had emotional problems, were you successful at helping yourself?	X No information 0 No 1 Qualified yes/ sometimes 2 Definite yes
(SO) Rapid onset	A8.	Did your emotional problems come suddenly so that one day you were completely normal and the next day you were very troubled?	X No information 0 No 1 Qualified yes/ sometimes 2 Definite yes
(OS) Overly specified symptoms	A9.	Have you lost exactly 4 pounds in the last 12 months?	X No information 0 No 1 Qualified yes/ sometimes 2 Definite yes
(SC) Affective symptoms	A10.	At times when you have felt happy, do you lose all interest in other people?	X No information 0 No 1 Qualified yes/ sometimes 2 Definite yes

(DS)	A11. Do you feel angry when others try to take advantage of you?	X No information 0 No 1 Qualified yes/ sometimes 2 Definite yes
(RO) Paranoid behaviour	A12. Do you find it difficult to sit in a chair without looking under or behind it?	X No information 0 Consistent 1 Inconsistent with behaviour 2 Behaviour is suddenly worse
(IA) Unusual somatic complaints	A13. Do your teeth hurt only while eating breakfast?	X No information 0 No 1 Qualified yes/ sometimes 2 Definite yes
(RS) Olfactory hallucinations	A14. Are you bothered by strange smells wherever you go?	X No information 0 No 1 Qualified yes/ sometimes 2 Definite yes
(DS)	A15. Do you feel nervous when speaking to a large audience?	X No information 0 No 1 Qualified yes/ sometimes 2 Definite yes
(IA) Unusual auditory hallucinations	A16. Can cats or dogs communicate with you in some special way? Does this involve actual words from them?	X No information 0 No 1 Qualified yes/ sometimes 2 Definite yes
(SO) Rapid resolution	A17. Have you ever woken up one morning and realized that all of your problems were gone ... that you were feeling completely okay?	X No information 0 No 1 Qualified yes/ sometimes 2 Definite yes
(OS) Overly specified symptoms	A18. Do people seem to criticize you more on Wednesdays than any other day?	X No information 0 No 1 Qualified yes/ sometimes 2 Definite yes
(DA) Disinterest	A19. Does it matter to you what mental health professionals think about you?	X No information 0 No 1 Qualified yes/ sometimes 2 Definite yes

(IA) Incongruous delusional beliefs	A20. Do you believe that trees have supernatural powers?	X No information 0 No 1 Qualified yes/ sometimes 2 Definite yes
(RS) Simple phobias of benign objects	A21. Do you become fearful of soft household objects for no real reason?	X No information 0 No 1 Qualified yes/ sometimes 2 Definite yes
(DS)	A22. Has there ever been a period of time when you worried about the future?	X No information 0 No 1 Qualified yes/ sometimes 2 Definite yes
(SC) Paranoid thinking	A23. Have you ever felt that people were following you? Did you experience an increase in appetite during those times?	X No information 0 No 1 Qualified yes/ sometimes 2 Definite yes
(RO) Speech	A24. Do you stutter and stumble over your words when you first talk with someone?	X No information 0 Consistent 1 Inconsistent with behaviour 2 Behaviour is suddenly worse
(DS)	A25. Would you be upset if a police officer caught you speeding?	X No information 0 No 1 Qualified yes/ sometimes 2 Definite yes
(OS) Overly specified symptoms	A26. Do you feel more confused or upset at noon time than at other times?	X No information 0 No 1 Qualified yes/ sometimes 2 Definite yes
(RS) Neologisms	A27. Do you make up your own words and expect others to understand them?	X No information 0 No 1 Qualified yes/ sometimes 2 Definite yes
(IA) Bizarre rituals	A28. Do you have to cross your arms before you can cross the street?	X No information 0 No 1 Qualified yes/ sometimes 2 Definite yes

(DA) Manipulation	A29. Do you sometimes like to keep doctors guessing about what is really going on with you?	X No information 0 No 1 Qualified yes/ sometimes 2 Definite yes
(DS)	A30. Do you sometimes pretend to know something so you won't look stupid?	X No information 0 No 1 Qualified yes/ sometimes 2 Definite yes
(SC) Auditory hallucinations	A31. Have you ever heard voices coming out of nowhere? Was this at the same time you had seizures or trouble walking?	X No information 0 No 1 Qualified yes/ sometimes 2 Definite yes
(RO) Speech	A32. When talking to others, do you whisper for no apparent reason?	X No information 0 Consistent 1 Inconsistent with behaviour 2 Behaviour is suddenly worse
(DA) Exaggeration	A33. Do you sometimes make your symptoms seem worse than they actually are?	X No information 0 No 1 Qualified yes/ sometimes 2 Definite yes
(OS) Overly specified symptoms	A34. Do you spend much time worrying about your physical health? Would this average between 30-40 minutes each day?	X No information 0 No 1 Qualified yes/ sometimes 2 Definite yes
(SC) Delusions	A35. Do you have thoughts about your own talents and abilities? Do these thoughts occur at times when you have increased need for sleep?	X No information 0 No 1 Qualified yes/ sometimes 2 Definite yes
(DS)	A36. Is it hard for you to forget mistakes you've made in the past?	X No information 0 No 1 Qualified yes/ sometimes 2 Definite yes
(RO) Facial expressions	A37. Do you tend to frown most of the time?	X No information 0 Consistent 1 Inconsistent with behaviour 2 Behaviour is suddenly worse

(IA) Bizarre anxiety symptoms

A38. Do you experience feelings of terror at the sound of children's voices?

X No information
0 No
1 Qualified yes/ sometimes
2 Definite yes

(DA) Partial truth

A39. Do you often tell people only half the story ... leave it to them to figure out the rest?

X No information
0 No
1 Qualified yes/ sometimes
2 Definite yes

(IA) Incongruous paranoid beliefs

A40. Can common insects be used for electronic surveillance?

X No information
0 No
1 Qualified yes/ sometimes
2 Definite yes

(DS)

A41. Do you have any painful memories from your childhood?

X No information
0 No
1 Qualified yes/ sometimes
2 Definite yes

(IF) Improbable failure

Some people with psychological problems have difficulty with concentration and memory. Please complete the following test as quickly as you can.
(Record only failures. These items should be scored liberally, eg., any response reflecting opposite content is acceptable)

A42. What is the opposite of:
(a) HOT _____
(b) SAD _____
(c) SLENDER _____
(d) SLEEPY _____
(e) HUNGRY _____

Number of failures _____

A43. What word rhymes with:
(a) FAT _____
(b) BOOK _____
(c) CAKE _____
(d) SLOW _____
(e) MOP _____

Number of failures _____

(RO) Breathing

A44. Do you tend to sigh when talking to others?

X No information
0 Consistent
1 Inconsistent with behaviour
2 Behaviour is suddenly worse

(IA) Unusual manic symptoms

A45. Do you often experience feelings of energy and excitement?
Do these feelings sometimes occur at unusual times, like when you hear sad news?

X No information
0 No
1 Qualified yes/ sometimes
2 Definite yes

(DS)	A46. Do you ever have thoughts about "getting even" when someone hurts your feelings?	X No information 0 No 1 Qualified yes/ sometimes 2 Definite yes
(RS) Prolonged deperson-alization	A47. Do you sometimes feel strange and unreal for several days in a row? (Rule out drug abuse and lack of sleep, i.e., Is this because you were taking drugs or didn't get enough sleep?)	X No information 0 No 1 Qualified yes/ sometimes 2 Definite yes
(SC) Physical pain	A48. Do you sometimes have severe physical pains? Do these pains create feelings of inner happiness or peace? (Rule out medication, i.e., Is this because of prescribed medication you were taking?)	X No information 0 No 1 Qualified yes/ sometimes 2 Definite yes
(RO) Limb movement	A49. Do you move your feet a lot when sitting in a chair?	X No information 0 Consistent 1 Inconsistent with behaviour 2 Behaviour is suddenly worse
(IA) Bizarre depressive symptoms	A50. Do you have intense feelings of depression? Do these only occur while watching T.V.?	X No information 0 No 1 Qualified yes/ sometimes 2 Definite yes
(DS)	A51. Are your moods affected by the weather?	X No information 0 No 1 Qualified yes/ sometimes 2 Definite yes
(SC) Anxiety	A52. Do you often feel scared? Does this seem to happen to you when your personal hygiene is poor?	X No information 0 No 1 Qualified yes/ sometimes 2 Definite yes
(IA) Physical pain	A53. Do you often have physical pain? Do you experience this pain equally throughout your body?	X No information 0 No 1 Qualified yes/ sometimes 2 Definite yes
(RS) Distortions of body image	A54. Have there been major changes in the way your body looks to you? (Rule out if the result of aging or disease, i.e., Is it because you have been getting older, or are physically ill?)	X No information 0 No 1 Qualified yes/ sometimes 2 Definite yes

(DA) Fabrication

A55. Have you ever made up psychological problems that didn't really exist?

X No information
0 No
1 Qualified yes/ sometimes
2 Definite yes

(CS) Consistency of symptoms

I would like to go over several earlier questions to make sure I have the correct information.

	Symptom	Endorsed X	Endorsed No	Endorsed Yes	Unbearable Yes
A2.1	Do you have any major problems with:				
1	... concentration?	X	0	1	2
2	... strange or disturbing thoughts?	X	0	1B	2
3	... waking up early in the morning?	X	0	1	2
4	... hearing voices which aren't really there?	X	0	1B	2
	The problem you mentioned with . . . is it unbearable?				
A2.2	Do you have any major difficulties with:				
1	... others plotting against you?	X	0	1B	2
2	... being irritated with others?	X	0	1	2
3	... losing weight?	X	0	1	2
4	... feeling that you can control world events?	X	0	1B	2
	The difficulty you mentioned with . . . is it unbearable?				
A2.3	Do you have any major problems with:				
1	... being very depressed?	X	0	1B	2
2	... having others control your movements?	X	0	1B	2
3	... sleeping too much?	X	0	1	2
4	... over-reacting to difficult situations?	X	0	1	2
	The problem you mentioned with . . . is it unbearable?				
A2.4	Do you have any major difficulties with:				
1	... pronouncing difficult words?	X	0	1	2
2	... maintaining your interest in activities?	X	0	1	2
3	... keeping your sexual feelings under control?	X	0	1B	2
4	... having unfriendly people following you?	X	0	1B	2
	The difficulty you mentioned with . . . is it unbearable?				

Number of symptoms endorsed on the 1st but not 2nd inquiry _____
Number of symptoms endorsed on the 2nd but not first inquiry _____
Total number of inconsistencies _____

(CO) Clinical Observations	These items should be scored immediately following the interview portion of the SIRS. Note that the observed behaviour should be markedly deviant before it before it is rated a 1.	
Latency of response	A56. Respondent pauses before answering. Considering the respondent verbal abilities, was he/she unusually slow in responding?	X No information 0 No undue slowness 1 Long latencies
Hesitations	A57. Respondent pauses while answering. Considering the respondent verbal abilities, did he/she pause or hesitate frequently?	X No information 0 Expected number 1 Unusually high number
Willingness to discuss symptoms	A58. Was the respondent eager to discuss his/her symptoms? Eagerness must distinguished from cooperativeness.	X No information 0 No 1 Yes
Embellishment	A59. Is there a pattern of embellishing symptoms, and spontaneously providing additional descriptions or more severe symptoms?	X No information 0 little or none 1 Many clear instances
Clownish or dramatic presentation	A60. Is there a clownish or comical quality to the respondent's presentation? (For eg. dramatic flair, or joking about symptoms?)	X No information 0 No 1 Yes
Word or phrase repetitions	A61. Does the respondent repeat him/herself frequently?	X No information 0 Relatively few 1 In the majority of responses
Irrelevant responding	A62. The respondent does not appear to either listen to questions or be concerned about he/she responds.	X No information 0 Relatively few 1 In the majority of responses
Blatant response set	A63. Is there a clearly identifiable pattern of responses? For eg. all "yes", all "no", or an alternating pattern.	X No information 0 No 1 Yes

Time finish _____

Total time _____

APPENDIX E: M TEST

Your age _____ Subject Number _____

Sex M F (circle)

Education (please check highest level achieved)

___ elementary school or junior high
___ some high school
___ high school graduate/2 years or less university
___ more than two years of university/college
___ university degree (B.A., B.Sc.)
___ graduate degree (M.A., M.Sc., Ph.D., etc.)

Before you begin the actual test on the next page, we would like you to complete the following eight attitude questions. They are simply a check that you are following directions, reading English at a minimum level, and answering in a cooperative way so that the results will be usable. Circle T for True and circle F for False. Thanks.

The following items are <u>not</u> signs of mental problems. They are attitude items.

1.	Gray is my favorite colour.	T	F
2.	I believe that nuclear war would <u>not</u> harm the world.	T	F
3.	I don't like to listen to music.	T	F
4.	I believe vegetables are unhealthy (bad for you).	T	F
5.	I believe that cancer is a horrible disease.	T	F
6.	I enjoy it when I laugh.	T	F
7.	Food tastes good when you're really hungry.	T	F
8.	At this moment I am taking a true\false test.	T	F

The M Test

Below you will find a list of difficulties that are common to people with psychiatric problems or mental illness. Indicate which problems you have by circling either "True" or "False" below.

1. Periodically I am bothered by hearing voices that no one else hears. T F

2. I have had the strong feeling that people are out to get me. T F

3. I am sometimes bothered by a feeling that other people are controlling me or manipulating my thoughts in some manner. T F

4. I believe that people around me are plotting to nominate me for an Academy Award (the Oscar). T F

5. I find myself bothered by thoughts that the member of parliament who represents my area is really a leader of a secret religious cult. T F

6. I have been bothered that a close friend was secretly a very famous person. T F

7. Sometimes I find myself bothered or made anxious by the thought that I am suffering from a horrible disease that may cause my death. T F

8. There are times when I have a vague feeling that I am a very important person and that other people know it. T F

9. There have been times when I have found myself thinking that as a teenager I was the chairman of the board of a major corporation. T F

THE NEXT TWO QUESTIONS ARE FOR MEN ONLY

10. I find myself having the nagging thought that I have a woman's sex organs inside me. T F

11. I have the nagging worry every once in a while that I might be pregnant, even though I know it's impossible. T F

12. I feel comforted by the fact that God has a very personal relationship with me and often has me do his work. T F

13. I believe that God has appointed me to teach the Zolan beliefs to all people that I meet. T F

14. There are times when I have gone to church or heard a sermon when I had the distinct feeling that the preacher was talking to me personally and not to the other members of the audience. T F

15. I've been bothered by the thought that I am an unknown relative of Jesus. T F

16. Sometimes in the middle of the day I am bothered by a vision of a gray man walking towards me when actually there is no one there. T F

17. I find myself bothered periodically by hearing a number of women's voices saying cooking instructions out loud when there is no one around. T F

18. Sometimes after waking up in the morning I am bothered by seeing coloured triangles in my field of vision. T F

19. Sometimes I find myself quite happy to be smelling a lovely scent when I'm not in the presence of any flowers or perfume. This scent goes on for hours or days. T F

20. Sometimes my thinking becomes so scattered that I have difficulty keeping my mind on track. T F

21. Sometimes when I'm talking to someone I find myself distracted by thoughts about how the words in my sentences might be spelled. T F

22. I often find myself uncomfortable with people and essentially find myself avoiding being around them. T F

23. Sometimes my need to be alone and my fear of people is so powerful that I will spend hours in a closed closet by myself. T F

24. There are times when I find myself unusually attracted to flickering lights and I will spin objects in front of me just to see their flicker for hours on end. T F

25. Often I notice strangers observing me. T F

APPENDIX F: CONSENT FORM

O.C.I. Research Project

I have been asked to participate in a study by Randy Kropp and Dr. Richard Rogers. The study looks at how well O.C.I. residents can pretend to have a mental illness. I will be given instructions on how to do this.

I will be asked to complete a short questionnaire and two short interviews. Altogether, this will take about 1 1/2 hours.

The researchers will review my records at the O.C.I. in order to get information about aspects of my personality. I understand that the results of my participation will be confidential and will not be shared with O.C.I. staff.

I may withdraw from the study at anytime for any reason. If I complete the study, I understand that $5.00 will be placed in my resident's account. I also understand that there is a 1 in 2 chance that I will be asked to pretend that I am mentally ill. If I am asked and am convincing in my presentation, I will be given an additional $5.00 ($10.00 altogether). I understand that some residents will not be successful at faking a mental illness and will not receive the extra $5.00.

[redacted]
Print Name

[redacted]
Signature

Witness

[redacted]
Date